

## **LLNL Livermore Site Second Quarter 2010 Self-Monitoring Report**

The following is the second quarter 2010 self-monitoring data for the treatment facilities and Lake Haussmann at the Lawrence Livermore National Laboratory (LLNL) Livermore Site.

The volumes of ground water and soil vapor treated and volatile organic compound (VOC) mass removed during the second quarter of 2010 are presented in Tables 1 and 2, respectively. An historical summary of VOC volume and mass removed are presented in Tables 3 and 4, respectively.

Attachment A presents ground water treatment facility and extraction well (ground water and soil vapor) VOC, chromium, bioassay, turbidity and chloride analyses (Tables A-1 through A-5). During the second quarter of 2010, all effluent sample analyses were within acceptable discharge limits. The TFD Southshore (PTU12) effluent sample collected on May 13, 2010 had a detection of 0.64 µg/L of trichloroethene (TCE), which is below the Livermore Site TCE discharge limit of 5 µg/L. The effluent was re-sampled on May 27, 2010 in which TCE was not detected above the practical quantitation limit (PQL) of 0.5 µg/L.

Self-monitoring reports for all treatment facilities are presented in Attachment B. Monthly volumes of ground water extracted are shown in Attachment B; however, instantaneous flow rates are not shown for wells that are now only used for sampling and are not continuously pumped. The monthly volume shown for these wells is the quantity of water evacuated for sampling purposes. Monitoring data for Lake Haussmann are presented in Attachment C.

A map showing Livermore Site treatment areas and treatment facility locations, and ground water elevation contour maps showing hydraulic capture zones for hydrostratigraphic units (HSUs) 1B, 2, 3A, 3B, 4, and 5, are presented in Attachment D. The contour maps for the individual HSUs are based on data collected during April 2010.

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**Table 1. Volumes of ground water and soil vapor extracted and treated at the Livermore Site, April through June 2010.**

Treatment Area <sup>a</sup>	Month	Volume of ground water extracted (Kgal) <sup>b</sup>	Volume of vapor extracted (Kft <sup>3</sup> ) <sup>b</sup>
TFA	April	8,748	-
	May	6,634	-
	June	5,439	-
TFB	April	2,138	-
	May	2,110	-
	June	2,668	-
TFC	April	3,241	-
	May	3,532	-
	June	4,130	-
TFD	April	5,167	1,750
	May	6,002	1,802
	June	7,694	2,082
TFE	April	2,236	2,131
	May	2,037	1,623
	June	2,453	1,741
TFG	April	693	-
	May	663	-
	June	795	-
TFH	April	866	1,626
	May	863	2,306
	June	961	2,575
<b>TOTAL<sup>c</sup></b>		<b>69,070</b>	<b>17,636</b>

<sup>a</sup> Totals include ground water and soil vapor extracted from the following facilities:

TFA area: TFA, TFA-E, TFA-W

TFB area: TFB

TFC area: TFC, TFC-E, TFC-SE

TFD area: TFD, TFD-E, TFD-HPD, TFD-S, TFD-SE, TFD-SS, TFD-W, VTFD-ETCS, VTFD-HPD, VTFD-HS

TFE area: TFE-E, TFE-HS, TFE-NW, TFE-SE, TFE-SW, TFE-W, VTFE-ELM, VTFE-HS

TFG area: TFG-1, TFG-N

TFH area: TF406, TF406-NW, TF518-N, TF518-PZ, TF5475-1, TF5475-2, TF5475-3, VTF406-HS, VTF511, VTF518-PZ, VTF5475

TFF started operation in February 1993 for fuel hydrocarbon remediation. In August 1995, the regulatory agencies agreed that the vadose zone remediation was complete, and in October 1996 a No Further Action status was granted for the ground water.

<sup>b</sup> Totals are derived from individual extraction wells shown in Attachment B

<sup>c</sup> Rounded number

Kft<sup>3</sup> = thousands of cubic feet

Kgal = thousands of gallons

**Table 2. VOC mass removed at the Livermore Site, April through June 2010.**

<b>Treatment Area<sup>a</sup></b>	<b>VOC mass removed from ground water (kg)</b>	<b>VOC mass removed from soil vapor (kg)</b>	<b>Total VOC mass removed (kg) <sup>b</sup></b>
<b>TFA</b>	<b>1.0</b>	<b>-</b>	<b>1.0</b>
<b>TFB</b>	<b>0.6</b>	<b>-</b>	<b>0.6</b>
<b>TFC</b>	<b>1.4</b>	<b>-</b>	<b>1.4</b>
<b>TFD</b>	<b>8.8</b>	<b>0.8</b>	<b>9.6</b>
<b>TFE</b>	<b>2.0</b>	<b>0.7</b>	<b>2.7</b>
<b>TFG</b>	<b>0.2</b>	<b>-</b>	<b>0.2</b>
<b>TFH</b>	<b>0.3</b>	<b>8.4</b>	<b>8.7</b>
<b>TOTAL<sup>b</sup></b>	<b>14.3</b>	<b>9.9</b>	<b>24.2</b>

**Table 3. Historical summary of volumes of water and soil vapor removed at the Livermore Site through June 2010.**

<b>Treatment Area<sup>a</sup></b>	<b>Volume of ground water extracted (Mgal)</b>	<b>Volume of vapor extracted (Kft<sup>3</sup>)</b>
<b>TFA</b>	<b>1,689</b>	<b>-</b>
<b>TFB</b>	<b>400</b>	<b>-</b>
<b>TFC</b>	<b>415</b>	<b>-</b>
<b>TFD</b>	<b>890</b>	<b>69,286</b>
<b>TFE</b>	<b>331</b>	<b>144,205</b>
<b>TFG</b>	<b>68</b>	<b>-</b>
<b>TFH</b>	<b>145</b>	<b>193,388</b>
<b>TOTAL<sup>b</sup></b>	<b>3,938</b>	<b>406,879</b>

**Table 4. Historical summary of VOC mass removed from water and soil vapor at the Livermore Site through June 2010.**

<b>Treatment Area<sup>a</sup></b>	<b>VOC mass removed from ground water (kg)</b>	<b>VOC mass removed from soil vapor (kg)</b>	<b>Total VOC mass removed (kg) <sup>b</sup></b>
<b>TFA</b>	<b>200</b>	<b>-</b>	<b>200</b>
<b>TFB</b>	<b>76</b>	<b>-</b>	<b>76</b>
<b>TFC</b>	<b>96</b>	<b>-</b>	<b>96</b>
<b>TFD</b>	<b>792</b>	<b>89</b>	<b>881</b>
<b>TFE</b>	<b>204</b>	<b>145</b>	<b>349</b>
<b>TFG</b>	<b>10</b>	<b>-</b>	<b>10</b>
<b>TFH</b>	<b>33</b>	<b>1,178</b>	<b>1,211</b>
<b>TOTAL<sup>b</sup></b>	<b>1,411</b>	<b>1,412</b>	<b>2,823</b>

<sup>a</sup> Refer to Table 1 footnote for facilities in each treatment facility area.<sup>b</sup> Rounded number.

Abbreviations for Tables 2, 3 and 4:

Kft<sup>3</sup> = thousands of cubic feet.

Kg = Kilograms.

Mgal = millions of gallons.

VOC = Volatile organic compound.

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**Attachment A**

**VOC, Chromium, Bioassay,  
Turbidity, and Chloride Analyses**

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Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFA</b>													
TFA-I001	01-APR-10	E601	<0.5	<b>0.96</b>	<b>0.64</b>	<0.5	<b>1.2</b>	<1	<0.5	<b>7.3</b>	<0.5	<b>0.74</b>	<0.5
TFA-I001	08-MAY-10	E601	<0.5	<b>1</b>	<b>0.68</b>	<0.5	<b>1.3</b>	<1	<0.5	<b>7.5</b>	<0.5	<b>0.74</b>	<0.5
TFA-I001	01-JUN-10	E601	<0.5	<b>1.1</b>	<b>0.77</b>	<0.5	<b>1.4</b>	<1	<0.5	<b>7</b>	<0.5	<b>0.79</b>	<0.5
TFA-E001	01-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E001	08-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E001	01-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFA-E</b>													
W-254	03-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<b>0.65</b>	<1	<0.5	<b>43</b>	<0.5	<b>1.2</b>	<0.5
STU06-I	07-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<b>0.84</b>	<1	<0.5	<b>43</b>	<0.5	<b>1.1</b>	<0.5
STU06-I	02-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<b>0.72</b>	<1	<0.5	<b>40</b>	<0.5	<b>1.2</b>	<0.5
STU06-E	03-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
STU06-E	07-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
STU06-E	02-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFA-W<sup>a</sup></b>													
W-404	23-APR-10	E601	<0.5	<0.5	<b>1.6</b>	<0.5	<b>2.5</b>	<1	<0.5	<b>10</b>	<0.5	<0.5	<0.5
W-404	06-MAY-10	E601	<0.5	<0.5	<b>1.6</b>	<0.5	<b>2.6</b>	<1	<0.5	<b>10</b>	<0.5	<0.5	<0.5
W-404	09-JUN-10	E601	<0.5	<0.5	<b>1.5</b>	<0.5	<b>2.7</b>	<1	<0.5	<b>10</b>	<0.5	<b>0.52</b>	<0.5
TFA-W-E	06-MAY-10	E624	<1	<1	<b>1.5</b>	<1	<b>2.5</b>	<1	<1	<b>10</b>	<1	<0.5	<1
<b>TFB</b>													
TFB-I002	01-APR-10	E601	<b>0.6</b>	<b>2.2</b>	<0.5	<0.5	<b>1.5</b>	<1	<b>4.2</b>	<b>1.7</b>	<0.5	<b>15</b>	<0.5
TFB-I002	08-MAY-10	E601	<b>0.62</b>	<b>2.2</b>	<0.5	<0.5	<b>1.7</b>	<1	<b>3.9</b>	<b>1.4</b>	<0.5	<b>12</b>	<0.5
TFB-I002	01-JUN-10	E601	<0.5	<b>2</b>	<0.5	<0.5	<b>1.6</b>	<1	<b>3.4</b>	<b>1.3</b>	<0.5	<b>11</b>	<0.5
TFB-E002	01-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB-E002	08-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB-E002	01-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFC</b>													
TFC-I003	01-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<b>2.3</b>	<b>4</b>	<0.5	<b>7.4</b>	<0.5
TFC-I003	08-MAY-10	E601	<0.5	<b>1</b>	<0.5	<0.5	<b>0.81</b>	<1	<b>12</b>	<b>2.6</b>	<0.5	<b>8.2</b>	<0.5
TFC-I003	01-JUN-10	E601	<0.5	<b>1</b>	<0.5	<0.5	<b>0.83</b>	<1	<b>11</b>	<b>2.3</b>	<0.5	<b>8.3</b>	<0.5
TFC-E003	01-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFC (cont.)</b>													
TFC-E003	08-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E003	01-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFC-E</b>													
MTU1-I	12-APR-10	E601	<0.5	<b>16</b>	<0.5	<0.5	<b>1.2</b>	<1	<b>13</b>	<b>0.75</b>	<0.5	<b>10</b>	<b>5.6</b>
MTU1-I	05-MAY-10	E601	<0.5	<b>17</b>	<0.5	<0.5	<b>1.2</b>	<1	<b>13</b>	<b>0.74</b>	<0.5	<b>10</b>	<b>5.6</b>
MTU1-I	22-JUN-10	E601	<0.5	<b>17</b>	<0.5	<0.5	<b>1.3</b>	<1	<b>13</b>	<b>0.67</b>	<0.5	<b>9.8</b>	<b>5.1</b>
MTU1-E	12-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	05-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	22-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFC-SE</b>													
PTU1-I	02-APR-10	E601	<0.5	<b>6.1</b>	<0.5	<0.5	<b>3.6</b>	<1	<b>17</b>	<b>0.58</b>	<0.5	<b>21</b>	<b>0.94</b>
PTU1-I	07-MAY-10	E601	<0.5	<b>6.3</b>	<0.5	<0.5	<b>3</b>	<1	<b>18</b>	<b>0.66</b>	<0.5	<b>19</b>	<b>0.93</b>
PTU1-I	01-JUN-10	E601	<0.5	<b>6.6</b>	<0.5	<0.5	<b>2.9</b>	<1	<b>16</b>	<b>0.5</b>	<0.5	<b>17</b>	<b>0.95</b>
PTU1-E	02-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	07-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	01-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD</b>													
TFD-I004	28-APR-10	E601	<b>2.4</b>	<b>1.8</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>49</b>	<b>51</b>
TFD-I004	08-MAY-10	E601	<b>2.8</b>	<b>2.1</b>	<0.5	<0.5	<b>0.51</b>	<1	<b>0.67</b>	<b>0.8</b>	<0.5	<b>56</b>	<b>41</b>
TFD-I004	02-JUN-10	E601	<b>2.9</b>	<b>2.1</b>	<0.5	<0.5	<b>0.65</b>	<1	<b>0.75</b>	<b>0.88</b>	<0.5	<b>60</b>	<b>44</b>
TFD-E004	28-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	08-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	02-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD-E</b>													
PTU8-I	02-APR-10	E601	<b>4.1</b>	<b>1.4</b>	<0.5	<b>0.93</b>	<b>8.4</b>	<1	<0.5	<b>10</b>	<0.5	<b>82</b>	<0.5
PTU8-I	08-MAY-10	E601	<b>4.3</b>	<b>1.5</b>	<b>0.52</b>	<b>0.86</b>	<b>10</b>	<1	<0.5	<b>12</b>	<0.5	<b>84</b>	<0.5
PTU8-I	02-JUN-10	E601	<b>5</b>	<b>1.8</b>	<0.5	<b>0.78</b>	<b>8.5</b>	<1	<b>0.66</b>	<b>10</b>	<0.5	<b>98</b>	<0.5
PTU8-E	02-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	08-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	02-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFD-HPD</b>													
PTU10-I	08-APR-10	E601	<b>2.6</b>	<b>0.62</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>58</b>	<0.5
PTU10-I	13-MAY-10	E601	<b>2.5</b>	<b>0.61</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>54</b>	<0.5
PTU10-I	08-JUN-10	E601	<b>2.6</b>	<b>0.59</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>52</b>	<0.5
PTU10-E	08-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU10-E	13-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU10-E	08-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD-S</b>													
PTU2-I	21-APR-10	E601	<b>1.3</b>	<b>1.9</b>	<0.5	<0.5	<b>5.6</b>	<1	<b>1.2</b>	<b>7.4</b>	<0.5	<b>79</b>	<0.5
PTU2-I	12-MAY-10	E601	<b>1.1</b>	<b>1.6</b>	<0.5	<0.5	<b>5.4</b>	<1	<b>1.2</b>	<b>7.1</b>	<0.5	<b>65</b>	<0.5
PTU2-I	09-JUN-10	E601	<b>1.2</b>	<b>1.9</b>	<0.5	<0.5	<b>5.8</b>	<1	<b>1.3</b>	<b>6.8</b>	<0.5	<b>66</b>	<0.5
PTU2-E	21-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	12-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	09-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD-SE</b>													
PTU11-I	12-APR-10	E601	<b>0.82</b>	<b>5.7</b>	<b>0.92</b>	<b>2</b>	<b>11</b>	<1	<b>2.5</b>	<b>34</b>	<0.5	<b>120</b>	<0.5
PTU11-I	05-MAY-10	E601	<b>0.91</b>	<b>6.9</b>	<b>1.1</b>	<b>2.2</b>	<b>13</b>	<1	<b>3.2</b>	<b>41</b>	<0.5	<b>140</b>	<0.5
PTU11-I	02-JUN-10	E601	<b>1.2</b>	<b>9.8</b>	<b>1.1</b>	<b>2.8</b>	<b>18</b>	<1	<b>4.2</b>	<b>49</b>	<0.5	<b>180</b>	<0.5
PTU11-E	12-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU11-E	05-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU11-E	02-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD-SS</b>													
PTU12-I	22-APR-10	E601	<b>3.8</b>	<b>2.7</b>	<b>0.74</b>	<b>2.3</b>	<b>13</b>	<1	<b>0.87</b>	<b>20</b>	<0.5	<b>170</b>	<b>16</b>
PTU12-I	13-MAY-10	E601	<b>3</b>	<b>3.1</b>	<b>1.1</b>	<b>3.3</b>	<b>19</b>	<1	<b>1</b>	<b>28</b>	<0.5	<b>180</b>	<b>8.8</b>
PTU12-I	07-JUN-10	E601	<b>2.9</b>	<b>2.6</b>	<b>1</b>	<b>3.3</b>	<b>17</b>	<1	<b>0.77</b>	<b>27</b>	<0.5	<b>180</b>	<b>7.6</b>
PTU12-E	22-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU12-E	13-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>0.64</b>	<0.5
PTU12-E	27-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU12-E	07-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD-W</b>													
PTU6-I	14-APR-10	E601	<b>0.52</b>	<b>4.2</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>6.3</b>	<b>78</b>
PTU6-I	11-MAY-10	E601	<0.5	<b>4.4</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>5.7</b>	<b>59</b>

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFD-W (cont.)</b>													
PTU6-I	07-JUN-10	E601	<b>0.53</b>	<b>4.1</b>	<0.5	<0.5	<0.5	<1	<b>0.52</b>	<0.5	<0.5	<b>6.4</b>	<b>73</b>
PTU6-E	14-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU6-E	11-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU6-E	07-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFE-E</b>													
PTU3-I	15-APR-10	E601	<0.5	<b>3.6</b>	<0.5	<0.5	<b>15</b>	<1	<b>10</b>	<b>21</b>	<0.5	<b>89</b>	<0.5
PTU3-I	13-MAY-10	E601	<0.5	<b>3.1</b>	<0.5	<0.5	<b>45</b>	<1	<b>14</b>	<b>62</b>	<0.5	<b>160</b>	<0.5
PTU3-I	03-JUN-10	E601	<0.5	<b>3.2</b>	<b>0.5</b>	<0.5	<b>44</b>	<1	<b>14</b>	<b>60</b>	<0.5	<b>160</b>	<0.5
PTU3-E	15-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU3-E	13-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU3-E	03-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFE-HS<sup>b</sup></b>													
GTU07-I	21-JUN-10	E601	<0.5	<b>0.94</b>	<0.5	<0.5	<b>8.1</b>	<b>1.2</b>	<b>18</b>	<b>33</b>	<0.5	<b>290</b>	<0.5
GTU07-E	21-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFE-NW</b>													
PTU9-I	21-APR-10	E601	<b>0.6</b>	<b>3.4</b>	<0.5	<0.5	<0.5	<1	<b>1</b>	<0.5	<0.5	<b>11</b>	<0.5
PTU9-I	11-MAY-10	E601	<b>0.52</b>	<b>3.2</b>	<0.5	<0.5	<0.5	<1	<b>1.2</b>	<0.5	<0.5	<b>9.9</b>	<0.5
PTU9-I	07-JUN-10	E601	<0.5	<b>2.9</b>	<0.5	<0.5	<0.5	<1	<b>1.1</b>	<0.5	<0.5	<b>11</b>	<0.5
PTU9-E	21-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	11-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	07-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFE-SE</b>													
W-359	12-APR-10	E601	<b>3.5</b>	<b>0.84</b>	<0.5	<0.5	<b>18</b>	<1	<b>6.5</b>	<b>7.6</b>	<0.5	<b>150</b>	<b>0.93</b>
MTU04-I	05-MAY-10	E601	<b>3.8</b>	<b>0.89</b>	<0.5	<0.5	<b>20</b>	<1	<b>7.9</b>	<b>8.5</b>	<0.5	<b>180</b>	<b>1</b>
MTU04-I	02-JUN-10	E601	<b>4.8</b>	<b>1.1</b>	<0.5	<0.5	<b>27</b>	<1	<b>8.4</b>	<b>9</b>	<0.5	<b>220</b>	<b>1.4</b>
MTU04-E	12-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	05-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	02-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFE-SW</b>													
MTU03-I	08-APR-10	E601	<0.5	<b>0.57</b>	<0.5	<0.5	<b>1.5</b>	<b>2.2</b>	<b>0.89</b>	<b>0.73</b>	<0.5	<b>14</b>	<0.5
MTU03-I	13-MAY-10	E601	<0.5	<b>0.54</b>	<0.5	<0.5	<b>1.7</b>	<b>2.1</b>	<b>1</b>	<b>0.94</b>	<0.5	<b>12</b>	<0.5
MTU03-I	08-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<b>1.6</b>	<b>1.9</b>	<b>1</b>	<b>0.7</b>	<0.5	<b>12</b>	<0.5
<b>TFE-W</b>													
MTU05-I	08-APR-10	E601	<0.5	<b>1</b>	<0.5	<0.5	<b>2.3</b>	<b>1.4</b>	<b>9.5</b>	<b>5.4</b>	<0.5	<b>32</b>	<0.5
MTU05-I	13-MAY-10	E601	<0.5	<b>1.1</b>	<0.5	<0.5	<b>2.6</b>	<b>1.6</b>	<b>11</b>	<b>6.1</b>	<0.5	<b>31</b>	<0.5
MTU05-I	08-JUN-10	E601	<0.5	<b>1.1</b>	<0.5	<0.5	<b>2.7</b>	<b>1.5</b>	<b>12</b>	<b>5.6</b>	<0.5	<b>31</b>	<b>0.5</b>
MTU05-E	08-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU05-E	13-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU05-E	08-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFG-1</b>													
W-1111	07-APR-10	E601	<b>2.9</b>	<b>9.3</b>	<0.5	<0.5	<b>1</b>	<1	<b>0.52</b>	<b>1.2</b>	<0.5	<b>4</b>	<0.5
GTU01-I	12-MAY-10	E601	<b>2.8</b>	<b>9.8</b>	<0.5	<0.5	<b>1.1</b>	<1	<b>0.55</b>	<b>1.2</b>	<0.5	<b>3.7</b>	<0.5
GTU01-I	14-JUN-10	E601	<b>2.9</b>	<b>9.9</b>	<0.5	<0.5	<b>1.1</b>	<1	<b>0.57</b>	<b>1.2</b>	<0.5	<b>3.9</b>	<0.5
GTU01-E	07-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU01-E	12-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU01-E	14-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFG-N</b>													
MTU02-I	23-APR-10	E601	<0.5	<b>3.6</b>	<0.5	<0.5	<b>1</b>	<1	<b>1.1</b>	<b>15</b>	<0.5	<b>4.8</b>	<0.5
MTU02-I	12-MAY-10	E601	<0.5	<b>3.6</b>	<0.5	<0.5	<b>1.3</b>	<1	<b>1.4</b>	<b>17</b>	<0.5	<b>4.7</b>	<0.5
MTU02-I	14-JUN-10	E601	<0.5	<b>3.3</b>	<0.5	<0.5	<b>1.2</b>	<1	<b>1.3</b>	<b>15</b>	<0.5	<b>5</b>	<0.5
MTU02-E	23-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU02-E	12-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU02-E	14-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TF406</b>													
PTU5-I	15-APR-10	E601	<0.5	<b>0.67</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>5.5</b>	<0.5
PTU5-I	13-MAY-10	E601	<0.5	<b>0.89</b>	<0.5	<0.5	<0.5	<1	<b>0.54</b>	<0.5	<0.5	<b>6.6</b>	<0.5
PTU5-I	09-JUN-10	E601	<0.5	<b>0.87</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>6.2</b>	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TF406 (cont.)</b>													
PTU5-E	15-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU5-E	13-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU5-E	09-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TF406-NW</b>													
W-1801	13-APR-10	E601	<0.5	<b>1.9</b>	<0.5	<0.5	<0.5	<1	<b>6.9</b>	<b>0.83</b>	<0.5	<b>32</b>	<0.5
GTU03-I	06-MAY-10	E601	<0.5	<b>1.8</b>	<0.5	<0.5	<0.5	<1	<b>7.2</b>	<b>0.77</b>	<0.5	<b>31</b>	<0.5
GTU03-I	03-JUN-10	E601	<0.5	<b>1.8</b>	<0.5	<0.5	<0.5	<1	<b>7.5</b>	<b>0.7</b>	<0.5	<b>29</b>	<0.5
GTU03-E	13-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU03-E	06-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU03-E	03-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TF518-N<sup>c</sup></b>	---	---	--	--	--	--	--	--	--	--	--	--	--
<b>TF5475-1<sup>d</sup></b>	---	---	--	--	--	--	--	--	--	--	--	--	--
<b>TF5475-2<sup>e</sup></b>													
GTU09-I	17-MAY-10	E601	<b>2.2</b>	<b>25</b>	<b>0.75</b>	<b>2.7</b>	<b>23</b>	<1	<b>7.6</b>	<b>43</b>	<0.5	<b>330</b>	<0.5
GTU09-I	22-JUN-10	E601	<b>2.8</b>	<b>32</b>	<b>0.87</b>	<b>4.5</b>	<b>27</b>	<1	<b>8.3</b>	<b>47</b>	<0.5	<b>350</b>	<0.5
GTU09-E	17-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU09-E	22-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TF5475-3<sup>f</sup></b>	---	---	--	--	--	--	--	--	--	--	--	--	--

Notes on following page.

**Table A-1. VOC analyses of influent and effluent samples by treatment facility.**

<sup>a</sup> TFA-W effluent is discharged to the Livermore Water Reclamation Plant in accordance with Permit #151OG (2006-2008). The discharge limit for Total Toxic Organics is 1.0 mg/L.

<sup>b</sup> TFE-HS did not operate during April and May due to pump and controller replacement.

<sup>c</sup> TF518-N did not operate during this reporting period due to mixed waste disposition issues.

<sup>d</sup> TF5475-1 did not operate during this reporting period due to mixed waste disposition issues.

<sup>e</sup> TF5475-2 did not operate during April due to construction activities in the area (including power upgrades to ERD facilities in the T5475 area).

<sup>f</sup> TF5475-3 did not operate during this reporting period due to mixed waste disposition issues.

Notes:

CCl<sub>4</sub> = Carbon tetrachloride

CHCl<sub>3</sub> = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFA</b>													
W-109	17-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<b>0.55</b>	<1	<b>0.52</b>	<b>1.9</b>	<0.5	<0.5	<0.5
W-262 <sup>a</sup>	29-JAN-08	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<b>0.56</b>	<0.5	<0.5	<0.5
W-408	17-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<b>0.66</b>	<0.5	<0.5	<0.5
W-415	17-APR-10	E601	<0.5	<b>1</b>	<b>0.87</b>	<0.5	<b>1.7</b>	<1	<0.5	<b>13</b>	<0.5	<b>1.1</b>	<0.5
W-457	17-APR-10	E601	<0.5	<0.5	<b>1</b>	<0.5	<b>1.1</b>	<1	<0.5	<b>7.5</b>	<0.5	<0.5	<0.5
W-518 <sup>a</sup>	24-APR-08	E601	<0.5	<0.5	<b>7.3</b>	<0.5	<b>4</b>	<1	<0.5	<b>6.3</b>	<0.5	<b>0.67</b>	<0.5
W-522 <sup>a</sup>	24-APR-08	E601	<0.5	<0.5	<b>2.3</b>	<0.5	<b>1.5</b>	<1	<0.5	<b>3.5</b>	<0.5	<0.5	<0.5
W-605	17-APR-10	E601	<0.5	<0.5	<b>1.5</b>	<0.5	<b>1.7</b>	<1	<0.5	<b>18</b>	<0.5	<b>0.96</b>	<0.5
W-614 <sup>a</sup>	11-JAN-10	E601	<0.5	<b>0.69</b>	<0.5	<0.5	<0.5	<1	<0.5	<b>8.1</b>	<0.5	<0.5	<0.5
W-712	17-APR-10	E601	<b>3.4</b>	<b>3.1</b>	<b>1.4</b>	<0.5	<b>4.1</b>	<1	<0.5	<b>1.8</b>	<0.5	<b>3.6</b>	<0.5
W-714	17-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<b>0.53</b>	<1	<0.5	<b>10</b>	<0.5	<0.5	<0.5
W-903	26-MAY-10	E601	<0.5	<0.5	<b>0.65</b>	<0.5	<b>0.6</b>	<1	<0.5	<b>4.5</b>	<0.5	<0.5	<0.5
W-904	17-APR-10	E601	<0.5	<0.5	<b>1.2</b>	<0.5	<b>1.4</b>	<1	<0.5	<b>8.6</b>	<0.5	<b>0.53</b>	<0.5
W-1001	17-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
W-1004	17-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<b>3.6</b>	<0.5	<0.5	<0.5
W-1009	17-APR-10	E601	<b>1.5</b>	<b>5.9</b>	<b>1</b>	<0.5	<b>3.7</b>	<1	<b>0.64</b>	<b>14</b>	<0.5	<b>2.3</b>	<0.5
<b>TFA-E</b>													
W-254	03-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<b>0.65</b>	<1	<0.5	<b>43</b>	<0.5	<b>1.2</b>	<0.5
<b>TFA-W</b>													
W-404	09-JUN-10	E601	<0.5	<0.5	<b>1.5</b>	<0.5	<b>2.7</b>	<1	<0.5	<b>10</b>	<0.5	<b>0.52</b>	<0.5
<b>TFB</b>													
W-357	17-APR-10	E601	<b>1.8</b>	<b>2.8</b>	<0.5	<0.5	<b>1.5</b>	<1	<b>4.6</b>	<b>1.2</b>	<0.5	<b>38</b>	<0.5
W-610	17-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<b>2.2</b>	<1	<b>2.8</b>	<b>1.2</b>	<0.5	<b>3.2</b>	<0.5
W-620	17-APR-10	E601	<0.5	<b>1.6</b>	<0.5	<0.5	<b>1.8</b>	<1	<b>2.5</b>	<b>1.5</b>	<0.5	<b>5.7</b>	<0.5
W-621	17-APR-10	E601	<0.5	<b>0.76</b>	<0.5	<0.5	<b>0.63</b>	<1	<b>1.3</b>	<b>0.55</b>	<0.5	<b>4.2</b>	<0.5
W-655	17-APR-10	E601	<0.5	<b>0.94</b>	<0.5	<0.5	<0.5	<1	<b>3.4</b>	<0.5	<0.5	<b>2.7</b>	<0.5
W-704	17-APR-10	E601	<b>0.72</b>	<b>3.7</b>	<0.5	<0.5	<b>2.2</b>	<1	<b>5.5</b>	<b>3.4</b>	<0.5	<b>25</b>	<0.5
W-1423	17-APR-10	E601	<b>0.88</b>	<b>5.3</b>	<0.5	<0.5	<b>3.6</b>	<1	<b>3.7</b>	<b>2</b>	<0.5	<b>10</b>	<0.5
<b>TFC</b>													
W-701	17-APR-10	E601	<0.5	<b>2.2</b>	<0.5	<0.5	<b>1.2</b>	<1	<b>28</b>	<b>0.65</b>	<0.5	<b>11</b>	<0.5
W-1015	17-APR-10	E601	<0.5	<b>0.57</b>	<0.5	<0.5	<b>1.2</b>	<1	<b>2.2</b>	<b>1.2</b>	<0.5	<b>6.1</b>	<0.5
W-1102	17-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<b>4.2</b>	<0.5	<0.5	<b>2.3</b>	<0.5
W-1103	17-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>1.4</b>	<0.5
W-1104	17-APR-10	E601	<0.5	<b>0.51</b>	<0.5	<0.5	<0.5	<1	<b>1.9</b>	<b>5</b>	<0.5	<b>8.6</b>	<0.5
W-1116 <sup>a</sup>	10-FEB-10	E601	<0.5	<b>0.67</b>	<0.5	<0.5	<0.5	<1	<b>5.7</b>	<b>1.9</b>	<0.5	<b>4</b>	<0.5



Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFC-E</b>													
W-368	12-APR-10	E601	<0.5	<b>12</b>	<0.5	<0.5	<b>0.79</b>	<1	<b>19</b>	<b>2.4</b>	<0.5	<b>16</b>	<b>6.5</b>
W-413	12-APR-10	E601	<0.5	<b>18</b>	<0.5	<0.5	<b>1.3</b>	<1	<b>11</b>	<0.5	<0.5	<b>9.1</b>	<b>5.5</b>
<b>TFC-SE</b>													
W-1213	02-APR-10	E601	<0.5	<b>2.9</b>	<0.5	<0.5	<b>3.9</b>	<1	<b>12</b>	<0.5	<0.5	<b>21</b>	<0.5
W-2201	02-APR-10	E601	<0.5	<b>7.8</b>	<0.5	<0.5	<b>3.1</b>	<1	<b>19</b>	<b>0.74</b>	<0.5	<b>20</b>	<b>1.3</b>
<b>TFD</b>													
W-351	08-MAY-10	E601	<b>6.6</b>	<b>1.5</b>	<0.5	<b>1</b>	<b>5</b>	<1	<b>1.4</b>	<b>5.8</b>	<0.5	<b>120</b>	<b>7</b>
W-653 <sup>a</sup>	05-JAN-10	E601	<b>27</b>	<b>9.2</b>	<0.5	<0.5	<b>0.98</b>	<b>1</b>	<b>2</b>	<b>0.83</b>	<0.5	<b>1100</b>	<0.5
W-906	08-MAY-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>3</b>	<0.5
W-907-2 <sup>a</sup>	08-APR-09	E601	<0.5	<b>7.2</b>	<0.5	<b>0.6</b>	<b>4.2</b>	<1	<b>1.6</b>	<b>7.8</b>	<0.5	<b>92</b>	<0.5
W-1206	01-JUN-10	E601	<b>0.9</b>	<b>1.7</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>17</b>	<b>39</b>
W-1208	08-MAY-10	E601	<b>3.2</b>	<b>2.4</b>	<0.5	<0.5	<0.5	<1	<b>0.69</b>	<b>0.6</b>	<0.5	<b>62</b>	<b>47</b>
W-2011 <sup>a</sup>	27-AUG-09	E601	<0.5	<b>0.56</b>	<0.5	<0.5	<0.5	<b>12</b>	<0.5	<0.5	<0.5	<b>4.8</b>	<0.5
W-2101 <sup>a</sup>	05-JAN-10	E601	<b>12</b>	<b>3.9</b>	<0.5	<0.5	<b>0.52</b>	<1	<b>0.76</b>	<b>0.55</b>	<0.5	<b>420</b>	<0.5
W-2102 <sup>a</sup>	28-AUG-09	E601	<b>9.1</b>	<b>7.5</b>	<0.5	<0.5	<b>0.51</b>	<b>2.3</b>	<b>2.6</b>	<b>0.54</b>	<0.5	<b>660</b>	<0.5
<b>TFD-E</b>													
W-1253 <sup>ab</sup>	11-FEB-08	E601	<b>6</b>	<b>6.2</b>	<5	<5	<b>16</b>	<10	<b>17</b>	<b>12</b>	<5	<b>2300</b>	<5
W-1255 <sup>a</sup>	11-FEB-08	E601	<b>4.4</b>	<b>2</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>260</b>	<0.5
W-1301	02-APR-10	E601	<b>2.8</b>	<b>1.8</b>	<b>1.6</b>	<b>4.9</b>	<b>45</b>	<1	<0.5	<b>50</b>	<0.5	<b>230</b>	<0.5
W-1303 <sup>a</sup>	14-OCT-08	E601	<b>3</b>	<b>2.9</b>	<b>0.8</b>	<b>3.1</b>	<b>7.2</b>	<1	<0.5	<b>6.7</b>	<0.5	<b>150</b>	<b>23</b>
W-1306	02-APR-10	E601	<b>5.5</b>	<b>3.2</b>	<0.5	<0.5	<b>0.98</b>	<1	<0.5	<b>3.9</b>	<0.5	<b>100</b>	<0.5
W-1307	02-APR-10	E601	<b>2.6</b>	<b>0.56</b>	<0.5	<0.5	<b>0.58</b>	<1	<0.5	<b>0.74</b>	<0.5	<b>28</b>	<0.5
W-1404	02-APR-10	E601	<0.5	<b>18</b>	<0.5	<b>3.6</b>	<b>2.6</b>	<1	<0.5	<b>44</b>	<0.5	<b>49</b>	<0.5
W-1550	02-APR-10	E601	<b>15</b>	<b>3.8</b>	<0.5	<0.5	<b>2.8</b>	<1	<b>1.3</b>	<b>9.7</b>	<0.5	<b>160</b>	<0.5
W-2006	02-APR-10	E601	<b>0.98</b>	<b>2</b>	<b>2.7</b>	<b>6.7</b>	<b>100</b>	<b>1.1</b>	<0.5	<b>56</b>	<0.5	<b>570</b>	<0.5
W-2203	02-JUN-10	E601	<b>17</b>	<b>2.4</b>	<0.5	<0.5	<b>3.6</b>	<1	<b>4.5</b>	<b>5.9</b>	<0.5	<b>150</b>	<0.5
<b>TFD-HPD</b>													
W-1254	08-APR-10	E601	<b>2.7</b>	<b>0.62</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>57</b>	<0.5
W-1551 <sup>a</sup>	24-AUG-09	E601	<b>4</b>	<b>2.1</b>	<0.5	<0.5	<0.5	<1	<b>1.6</b>	<0.5	<0.5	<b>170</b>	<0.5
W-1552 <sup>a</sup>	24-AUG-09	E601	<0.5	<b>1.1</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>26</b>	<0.5
W-1650 <sup>a</sup>	20-AUG-09	E601	<b>6.1</b>	<b>1.6</b>	<0.5	<0.5	<0.5	<1	<b>2.2</b>	<0.5	<0.5	<b>260</b>	<0.5
W-1651 <sup>a</sup>	24-AUG-09	E601	<b>1.5</b>	<b>1</b>	<0.5	<0.5	<0.5	<1	<b>0.85</b>	<0.5	<0.5	<b>74</b>	<0.5
W-1652 <sup>a</sup>	20-AUG-09	E601	<b>1.2</b>	<b>1.1</b>	<0.5	<0.5	<0.5	<b>2.4</b>	<0.5	<b>0.63</b>	<0.5	<b>150</b>	<0.5
W-1653 <sup>a</sup>	20-AUG-09	E601	<b>0.58</b>	<b>0.67</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>49</b>	<0.5
W-1654 <sup>a</sup>	24-AUG-09	E601	<0.5	<b>0.68</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>25</b>	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFD-HPD (cont.)</b>													
W-1655 <sup>a</sup>	24-AUG-09	E601	<b>0.62</b>	<b>1.1</b>	<0.5	<0.5	<0.5	<1	<0.5	<b>0.91</b>	<0.5	<b>63</b>	<0.5
W-1656 <sup>a</sup>	20-AUG-09	E601	<b>2.1</b>	<b>3</b>	<0.5	<0.5	<0.5	<1	<b>0.55</b>	<0.5	<0.5	<b>97</b>	<0.5
W-1657 <sup>a</sup>	24-AUG-09	E601	<b>8.9</b>	<b>4</b>	<0.5	<0.5	<0.5	<1	<b>4</b>	<0.5	<0.5	<b>730</b>	<0.5
<b>TFD-S</b>													
W-1503	21-APR-10	E601	<b>2.7</b>	<b>2.9</b>	<0.5	<b>0.61</b>	<b>5.3</b>	<1	<b>1.2</b>	<b>5.7</b>	<0.5	<b>100</b>	<0.5
W-1504	21-APR-10	E601	<0.5	<b>1.2</b>	<0.5	<0.5	<b>10</b>	<1	<b>2.3</b>	<b>17</b>	<0.5	<b>90</b>	<0.5
W-1510	21-APR-10	E601	<0.5	<b>0.81</b>	<0.5	<0.5	<b>1.8</b>	<1	<0.5	<b>3</b>	<0.5	<b>24</b>	<b>0.61</b>
<b>TFD-SE</b>													
W-314	12-APR-10	E601	<b>0.96</b>	<b>6.8</b>	<b>0.75</b>	<b>1.2</b>	<b>8.5</b>	<1	<b>3</b>	<b>13</b>	<0.5	<b>120</b>	<0.5
W-1308	12-APR-10	E601	<0.5	<b>1.5</b>	<b>1.6</b>	<b>5.4</b>	<b>18</b>	<b>1</b>	<0.5	<b>100</b>	<0.5	<b>140</b>	<0.5
W-1403	27-MAY-10	E601	<b>3</b>	<b>22</b>	<b>1.3</b>	<b>6.5</b>	<b>40</b>	<1	<b>4.8</b>	<b>66</b>	<0.5	<b>410</b>	<0.5
W-1904 <sup>a</sup>	26-DEC-07	E601	<0.5	<0.5	<b>0.54</b>	<b>0.67</b>	<b>5.8</b>	<1	<0.5	<b>39</b>	<0.5	<b>42</b>	<0.5
W-2005	12-APR-10	E601	<b>0.73</b>	<b>0.89</b>	<0.5	<0.5	<b>11</b>	<1	<0.5	<b>39</b>	<0.5	<b>45</b>	<0.5
SIP-ETC-201 <sup>a</sup>	26-DEC-07	E601	<0.5	<b>0.55</b>	<b>0.59</b>	<b>1.1</b>	<b>8.5</b>	<1	<0.5	<b>59</b>	<0.5	<b>60</b>	<0.5
<b>TFD-SS</b>													
W-1523	22-APR-10	E601	<b>9.8</b>	<b>4.9</b>	<b>1.1</b>	<b>3.2</b>	<b>29</b>	<1	<b>2.4</b>	<b>35</b>	<0.5	<b>300</b>	<0.5
W-1601	22-APR-10	E601	<b>3.8</b>	<b>4.7</b>	<b>1.7</b>	<b>5.9</b>	<b>27</b>	<b>1.2</b>	<b>1.6</b>	<b>96</b>	<0.5	<b>280</b>	<0.5
W-1602	22-APR-10	E601	<0.5	<b>1.6</b>	<0.5	<0.5	<0.5	<1	<0.5	<b>0.62</b>	<0.5	<b>11</b>	<b>12</b>
W-1603	22-APR-10	E601	<b>2.5</b>	<b>2.2</b>	<b>0.84</b>	<b>2.6</b>	<b>11</b>	<1	<0.5	<b>16</b>	<0.5	<b>130</b>	<b>27</b>
<b>TFD-W</b>													
W-1215	07-JUN-10	E601	<0.5	<b>5.4</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>5.4</b>	<b>33</b>
W-1216	07-JUN-10	E601	<b>0.53</b>	<b>3.6</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>5.9</b>	<b>60</b>
W-1902	07-JUN-10	E601	<b>0.67</b>	<b>3.4</b>	<0.5	<0.5	<0.5	<1	<b>0.71</b>	<0.5	<0.5	<b>7.3</b>	<b>95</b>
<b>TFE-E</b>													
W-566	15-APR-10	E601	<b>0.56</b>	<b>4.4</b>	<0.5	<0.5	<b>4.7</b>	<1	<b>11</b>	<b>3.5</b>	<0.5	<b>43</b>	<0.5
W-1109	15-APR-10	E601	<0.5	<b>0.75</b>	<b>0.56</b>	<0.5	<b>49</b>	<1	<b>8.5</b>	<b>83</b>	<0.5	<b>230</b>	<0.5
W-1903 <sup>a</sup>	06-JUL-09	E601	<0.5	<0.5	<b>1.3</b>	<0.5	<b>39</b>	<1	<b>7.6</b>	<b>88</b>	<0.5	<b>91</b>	<0.5
W-1909	20-MAY-10	E601	<0.5	<b>1.4</b>	<b>3.4</b>	<0.5	<b>210</b>	<b>3.4</b>	<b>14</b>	<b>380</b>	<0.5	<b>530</b>	<0.5
W-2305	27-APR-10	E601	<0.5	<b>0.7</b>	<b>1.6</b>	<0.5	<b>150</b>	<b>1.4</b>	<b>27</b>	<b>260</b>	<0.5	<b>570</b>	<0.5
<b>TFE-HS</b>													
W-2012	21-JUN-10	E601	<0.5	<b>0.97</b>	<0.5	<0.5	<b>8.3</b>	<b>1.2</b>	<b>20</b>	<b>34</b>	<0.5	<b>280</b>	<0.5
W-2105	24-JUN-10	E601	<0.5	<b>1.6</b>	<0.5	<0.5	<b>3.3</b>	<b>7.4</b>	<b>9.2</b>	<b>16</b>	<0.5	<b>470</b>	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFE-NW</b>													
W-1211	21-APR-10	E601	<b>0.58</b>	<b>3.5</b>	<0.5	<0.5	<0.5	<1	<b>1</b>	<0.5	<0.5	<b>11</b>	<0.5
W-1409	28-JUN-10	E601	<0.5	<0.5	<0.5	<0.5	<b>1</b>	<1	<b>0.73</b>	<b>1.8</b>	<0.5	<b>25</b>	<0.5
<b>TFE-SE</b>													
W-359	12-APR-10	E601	<b>3.5</b>	<b>0.84</b>	<0.5	<0.5	<b>18</b>	<1	<b>6.5</b>	<b>7.6</b>	<0.5	<b>150</b>	<b>0.93</b>
<b>TFE-SW</b>													
W-1518	08-APR-10	E601	<0.5	<b>0.53</b>	<0.5	<0.5	<b>1.4</b>	<b>2.1</b>	<b>0.86</b>	<b>0.79</b>	<0.5	<b>13</b>	<0.5
W-1520	20-APR-10	E601	<b>17</b>	<b>9.4</b>	<0.5	<b>5.2</b>	<b>3.6</b>	<b>2.6</b>	<0.5	<b>19</b>	<0.5	<b>400</b>	<0.5
W-1522	20-APR-10	E601	<b>0.77</b>	<b>2</b>	<b>1.1</b>	<0.5	<b>9</b>	<b>19</b>	<b>2.9</b>	<b>2</b>	<0.5	<b>70</b>	<b>0.52</b>
<b>TFE-W</b>													
W-292	08-APR-10	E601	<0.5	<b>0.74</b>	<0.5	<0.5	<b>1</b>	<b>2.7</b>	<b>1.2</b>	<b>1.2</b>	<0.5	<b>21</b>	<0.5
W-305	08-APR-10	E601	<0.5	<b>1.3</b>	<0.5	<0.5	<b>3.5</b>	<1	<b>17</b>	<b>8.8</b>	<0.5	<b>40</b>	<b>0.77</b>
<b>TFG-1</b>													
W-1111	07-APR-10	E601	<b>2.9</b>	<b>9.3</b>	<0.5	<0.5	<b>1</b>	<1	<b>0.52</b>	<b>1.2</b>	<0.5	<b>4</b>	<0.5
<b>TFG-N</b>													
W-1806	23-APR-10	E601	<0.5	<b>4</b>	<0.5	<0.5	<0.5	<1	<0.5	<b>12</b>	<0.5	<b>3.2</b>	<0.5
W-1807	23-APR-10	E601	<0.5	<b>3.5</b>	<0.5	<0.5	<b>1.4</b>	<1	<b>1.5</b>	<b>16</b>	<0.5	<b>5.5</b>	<0.5
<b>TF406</b>													
W-1309	15-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>1.9</b>	<0.5
W-1310	15-APR-10	E601	<0.5	<b>0.9</b>	<0.5	<0.5	<0.5	<1	<b>0.53</b>	<0.5	<0.5	<b>7.1</b>	<0.5
GSW-445 <sup>a</sup>	26-MAR-09	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>3</b>	<0.5
<b>TF406-NW</b>													
W-1801	13-APR-10	E601	<0.5	<b>1.9</b>	<0.5	<0.5	<0.5	<1	<b>6.9</b>	<b>0.83</b>	<0.5	<b>32</b>	<0.5
<b>TF518-N<sup>c</sup></b>													
W-1410 <sup>a</sup>	23-JAN-08	E601	<b>2.8</b>	<b>1.5</b>	<0.5	<0.5	<0.5	<1	<0.5	<b>0.83</b>	<0.5	<b>18</b>	<0.5
<b>TF518-PZ</b>													
W-1615	14-APR-10	E601	<b>0.74</b>	<b>0.68</b>	<0.5	<0.5	<b>6.7</b>	<1	<0.5	<b>36</b>	<0.5	<b>120</b>	<0.5
W-518-1913	14-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<b>1.6</b>	<1	<0.5	<b>15</b>	<0.5	<b>68</b>	<0.5
W-518-1914	14-APR-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<b>160</b>	<0.5	<b>77</b>	<0.5
W-518-1915 <sup>b</sup>	14-APR-10	E601	<5	<5	<5	<5	<b>16</b>	<10	<5	<b>230</b>	<5	<b>2800</b>	<5
SVB-518-201 <sup>a</sup>	07-FEB-08	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<b>35</b>	<0.5	<b>8.5</b>	<0.5

**Table A-2. VOC analyses of samples from treatment facility extraction wells.**

Extraction Well	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TF518-PZ (cont.)</b>													
SVB-518-204 <sup>a</sup>	07-FEB-08	E601	<0.5	<b>0.63</b>	<0.5	<0.5	<b>1.4</b>	<1	<0.5	<b>43</b>	<0.5	<b>550</b>	<0.5
<b>TF5475-1<sup>c</sup></b>													
W-1302-2 <sup>a</sup>	18-JUL-07	E601	<b>1.8</b>	<b>19</b>	<b>0.73</b>	<b>3.4</b>	<b>20</b>	<1	<b>7.4</b>	<b>41</b>	<0.5	<b>260</b>	<0.5
<b>TF5475-2</b>													
W-1108 <sup>a</sup>	06-JAN-10	E601	<b>2.1</b>	<b>23</b>	<b>0.72</b>	<b>2.8</b>	<b>21</b>	<1	<b>7.8</b>	<b>39</b>	<0.5	<b>280</b>	<0.5
W-1415 <sup>a</sup>	21-JAN-10	E601	<b>1.7</b>	<b>19</b>	<b>0.62</b>	<b>2.1</b>	<b>19</b>	<1	<b>8.4</b>	<b>32</b>	<0.5	<b>260</b>	<0.5
<b>TF5475-3<sup>c</sup></b>													
W-1604 <sup>a</sup>	21-AUG-07	E601	<b>2.9</b>	<b>29</b>	<b>0.94</b>	<b>5.2</b>	<b>23</b>	<1	<b>17</b>	<b>45</b>	<0.5	<b>390</b>	<0.5
W-1605	24-JUN-10	E601	<0.5	<b>22</b>	<b>0.6</b>	<b>11</b>	<b>3.3</b>	<b>1.5</b>	<0.5	<b>7.8</b>	<0.5	<b>87</b>	<0.5
W-1608	24-JUN-10	E601	<0.5	<b>26</b>	<0.5	<b>4.8</b>	<b>2.3</b>	<b>1.8</b>	<0.5	<b>6</b>	<0.5	<b>51</b>	<0.5
W-1609	24-JUN-10	E601	<0.5	<b>36</b>	<b>0.71</b>	<b>6.7</b>	<b>6.5</b>	<1	<0.5	<b>12</b>	<0.5	<b>100</b>	<0.5

Notes on following page.

**Table A-2. VOC analyses of samples from treatment facility extraction wells.**

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<sup>a</sup> Most recent VOC sample results available.

<sup>b</sup> Elevated detection limit due to dilution.

<sup>c</sup> Treatment Facility did not operate during reporting period. Please refer to Table A-1 for details.

Notes:

$\text{CCl}_4$  = Carbon tetrachloride

$\text{CHCl}_3$  = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE PPM(V/V)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>VTFD-ETCS</b>													
W-1904 <sup>a</sup>	09-JUN-09	TO15DIT	<0.005	<b>0.041</b>	<b>0.0056</b>	<0.005	<b>0.25</b>	<0.005	<0.005	<b>2.1</b>	<0.005	<b>0.67</b>	<0.005
W-ETC-2003	06-MAY-10	TO15DIF	<0.005	<0.005	<0.005	<0.005	<b>0.03</b>	<0.005	<0.005	<b>0.23</b>	<0.005	<b>0.087</b>	<0.005
W-ETC-2004A	06-MAY-10	TO15DIF	<0.005	<b>0.01</b>	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.25</b>	<0.005	<b>0.07</b>	<0.005
W-ETC-2004B	06-MAY-10	TO15DIF	<0.005	<b>0.048</b>	<b>0.0098</b>	<0.005	<b>0.12</b>	<0.005	<0.005	<b>1.3</b>	<b>0.012</b>	<b>2.4</b>	<0.005
SIP-ETC-201 <sup>a</sup>	09-JUN-09	TO15DIT	<0.005	<b>0.009</b>	<b>0.037</b>	<b>0.0059</b>	<b>0.65</b>	<0.005	<0.005	<b>2.9</b>	<0.005	<b>1.4</b>	<0.005
<b>VTFD-HPD</b>													
W-1552 <sup>a</sup>	13-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.011</b>	<0.005	<b>0.2</b>	<0.005
W-1650 <sup>a</sup>	03-JUL-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-1651 <sup>a</sup>	03-JUL-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-1652 <sup>a</sup>	03-JUL-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-1653 <sup>a</sup>	03-JUL-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-1654 <sup>a</sup>	03-JUL-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-1655 <sup>a</sup>	03-JUL-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-1656 <sup>a</sup>	03-JUL-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-1657 <sup>a</sup>	03-JUL-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-HPA-002A	26-APR-10	TO15DIT	<b>0.017</b>	<b>0.01</b>	<b>0.015</b>	<b>0.0097</b>	<b>0.14</b>	<b>0.015</b>	<0.005	<b>0.062</b>	<0.005	<b>0.2</b>	<0.005
W-HPA-002B <sup>a</sup>	23-JUL-09	TO15DIT	<0.011	<b>0.011</b>	<0.011	<0.011	<0.011	<0.011	<0.011	<b>0.056</b>	<0.011	<b>0.46</b>	<0.011
<b>VTFD-HS<sup>b</sup></b>													
W-653 <sup>a</sup>	03-NOV-09	TO15DIT	<b>0.026</b>	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.016</b>	<0.005	<0.005	<b>0.58</b>	<0.005
W-2011 <sup>a</sup>	15-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.081</b>	<0.005
W-2101 <sup>a</sup>	03-NOV-09	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.052</b>	<0.005
W-2102 <sup>a</sup>	15-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.11</b>	<0.005
<b>VTFE-ELM</b>													
W-1903 <sup>a</sup>	08-JUL-09	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-1909 <sup>a</sup>	10-JUL-09	TO15DIT	<0.005	<0.005	<b>0.0058</b>	<0.005	<b>0.95</b>	<0.005	<b>0.44</b>	<b>0.75</b>	<0.005	<b>1.5</b>	<0.005
W-2305 <sup>a</sup>	10-JUL-09	TO15DIT	<0.01	<0.01	<0.01	<0.01	<b>6</b>	<b>0.012</b>	<b>2.3</b>	<b>3.3</b>	<0.01	<b>7.5</b>	<b>0.014</b>
W-543-001 <sup>a</sup>	01-JUL-09	TO15DIT	<0.005	<0.005	<0.005	<0.005	<b>0.11</b>	<0.005	<b>0.017</b>	<b>0.34</b>	<0.005	<b>0.32</b>	<0.005
W-543-003	06-MAY-10	TO15DIF	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.009</b>	<0.005	<b>0.012</b>	<0.005
W-543-1908 <sup>a</sup>	01-JUL-09	TO15DIT	<0.005	<0.005	<0.005	<0.005	<b>0.072</b>	<0.005	<b>0.019</b>	<b>0.13</b>	<0.005	<b>0.33</b>	<0.005
<b>VTFE-HS</b>													
W-ETS-2008A	06-MAY-10	TO15DIF	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.035</b>	<0.005	<b>0.082</b>	<0.005
W-ETS-2008B	06-MAY-10	TO15DIF	<0.005	<b>0.0072</b>	<0.005	<0.005	<b>0.031</b>	<b>0.0078</b>	<b>0.071</b>	<b>0.51</b>	<0.005	<b>1.6</b>	<0.005
W-ETS-2009	26-MAY-10	TO15DIF	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.04</b>	<0.005
W-ETS-2010A	17-JUN-10	TO15DIF	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.037</b>	<0.005	<b>0.1</b>	<0.005
W-ETS-2010B	26-MAY-10	TO15DIF	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.018</b>	<b>0.042</b>	<0.005	<b>0.36</b>	<0.005

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE PPM(V/V)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>VTFE-HS (cont.)</b>													
W-2105	26-MAY-10	TO15DIF	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.025</b>	<0.005
<b>VTF406-HS</b>													
W-217	06-MAY-10	TO15DIF	<b>0.2</b>	<b>0.024</b>	<b>0.012</b>	<0.005	<b>1.2</b>	<b>0.014</b>	<b>0.24</b>	<b>1.2</b>	<0.005	<b>2</b>	<b>0.0079</b>
W-514-2007A	06-MAY-10	TO15DIF	<b>0.0055</b>	<0.005	<0.005	<0.005	<b>0.0074</b>	<0.005	<0.005	<b>0.029</b>	<0.005	<b>0.18</b>	<b>0.061</b>
W-514-2007B	06-MAY-10	TO15DIF	<b>0.12</b>	<b>0.017</b>	<b>0.019</b>	<0.005	<b>0.97</b>	<b>0.014</b>	<b>0.084</b>	<b>0.42</b>	<0.005	<b>3.5</b>	<b>0.029</b>
<b>VTF511</b>													
W-274 <sup>a</sup>	04-OCT-06	TO15DI	<b>0.14</b>	<b>0.02</b>	<0.0062	<0.0062	<b>0.07</b>	<0.0062	<b>0.014</b>	<b>0.33</b>	<0.0062	<b>6.1</b>	<b>0.38</b>
W-1517 <sup>a</sup>	20-DEC-07	TO15DI	<b>0.0066</b>	<0.005	<0.005	<0.005	<b>0.0068</b>	<0.005	<0.005	<b>0.022</b>	<0.005	<b>0.65</b>	<b>0.016</b>
W-2204 <sup>a</sup>	21-MAY-09	TO15DIT	<b>0.098</b>	<b>0.034</b>	<0.005	<b>0.038</b>	<b>0.019</b>	<0.005	<b>0.0082</b>	<b>0.42</b>	<0.005	<b>3.9</b>	<0.005
W-2206 <sup>a</sup>	21-MAY-09	TO15DIT	<b>0.013</b>	<b>0.022</b>	<0.005	<b>0.024</b>	<0.005	<0.005	<0.005	<b>0.24</b>	<0.005	<b>2</b>	<0.005
W-2207A <sup>a</sup>	14-MAY-09	TO15DIT	<0.005	<b>0.0055</b>	<0.005	<0.005	<b>0.0053</b>	<0.005	<0.005	<b>0.01</b>	<0.005	<b>1.5</b>	<0.005
W-2207B	04-MAY-10	TO15DIT	<b>0.021</b>	<b>0.03</b>	<0.017	<0.017	<b>0.032</b>	<0.017	<0.017	<b>0.02</b>	<0.017	<b>12</b>	<0.017
W-2208A <sup>a</sup>	14-MAY-09	TO15DIT	<b>0.025</b>	<b>0.016</b>	<0.01	<0.01	<b>0.05</b>	<0.01	<0.01	<b>0.019</b>	<0.01	<b>9.8</b>	<b>0.026</b>
W-2208B	04-MAY-10	TO15DIT	<b>0.18</b>	<b>0.054</b>	<b>0.036</b>	<0.031	<b>0.91</b>	<0.031	<b>0.1</b>	<b>0.2</b>	<0.031	<b>21</b>	<b>0.063</b>
W-2205 <sup>a</sup>	21-MAY-09	TO15DIT	<b>0.18</b>	<b>0.033</b>	<0.005	<b>0.0052</b>	<b>0.045</b>	<0.005	<b>0.0078</b>	<b>0.23</b>	<0.005	<b>3.6</b>	<b>0.012</b>
<b>VTF518-PZ</b>													
W-1615	06-MAY-10	TO15DIF	<b>0.041</b>	<b>0.008</b>	<0.005	<0.005	<b>0.62</b>	<0.005	<b>0.25</b>	<b>1.1</b>	<0.005	<b>4.3</b>	<0.005
W-518-1913 <sup>a</sup>	17-AUG-09	TO15DIT	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<b>0.19</b>	<0.17
W-518-1914 <sup>a</sup>	17-AUG-09	TO15DIT	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<b>1.1</b>	<0.12	<b>0.61</b>	<0.12
W-518-1915	06-MAY-10	TO15DIF	<0.028	<0.028	<0.028	<0.028	<b>0.24</b>	<0.028	<b>0.046</b>	<b>3.5</b>	<0.028	<b>22</b>	<0.028
SVB-518-201 <sup>a</sup>	14-AUG-09	TO15DIT	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076	<b>0.26</b>	<0.076
SVB-518-204 <sup>a</sup>	15-JAN-08	TO15DI	<0.02	<0.02	<0.02	<0.02	<b>0.051</b>	<0.02	<0.02	<b>2.4</b>	<0.02	<b>15</b>	<0.02
<b>VTF5475<sup>c</sup></b>													
W-ETS-507 <sup>a</sup>	23-SEP-09	TO15DI	<0.005	<b>2.7</b>	<0.005	<b>0.023</b>	<0.005	<0.005	<0.005	<b>0.54</b>	<0.005	<b>2.1</b>	<0.005
W-1605 <sup>a</sup>	06-SEP-07	TO15DI	<b>0.0069</b>	<b>0.17</b>	<0.005	<b>0.15</b>	<b>0.11</b>	<0.005	<b>0.036</b>	<b>0.1</b>	<0.005	<b>0.85</b>	<0.005
W-1608 <sup>a</sup>	06-SEP-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.0061</b>	<0.005
W-2211	30-JUN-10	TO15DIT	<b>0.012</b>	<b>0.58</b>	<b>0.02</b>	<b>0.068</b>	<b>0.3</b>	<0.005	<b>0.053</b>	<b>0.22</b>	<0.005	<b>1.6</b>	<0.005
W-2212	30-JUN-10	TO15DIT	<b>0.048</b>	<b>0.73</b>	<b>0.031</b>	<b>0.033</b>	<b>0.94</b>	<0.005	<b>0.18</b>	<b>0.42</b>	<0.005	<b>3</b>	<0.005
W-2302	30-JUN-10	TO15DIT	<b>0.035</b>	<b>0.48</b>	<b>0.02</b>	<b>0.034</b>	<b>0.6</b>	<0.012	<b>0.11</b>	<b>0.82</b>	<0.012	<b>8.1</b>	<0.012
W-2303 <sup>a</sup>	23-SEP-09	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SVI-ETS-504	29-JUN-10	TO15DIT	<0.005	<b>0.29</b>	<b>0.0088</b>	<0.005	<b>0.092</b>	<0.005	<0.005	<b>0.083</b>	<0.005	<b>0.39</b>	<0.005

Notes on following page.

**Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.**

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<sup>a</sup> Most recent VOC vapor sample results available.

<sup>b</sup> VTFD-HS did not operate during reporting period due to maintenance on TFD Main.

<sup>c</sup> VTF5475 did not operate during reporting period due to mixed waste disposition issues.

Notes:

$\text{CCl}_4$  = Carbon tetrachloride

$\text{CHCl}_3$  = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.



**Table A-4. Chromium analyses of influent, effluent and receiving water samples by treatment facility.**

<b>Treatment Facility</b>	<b>Sample Station</b>	<b>Date Sampled</b>	<b>Chromium (total)<sup>a</sup> mg/L (ppm)</b>	<b>Hexavalent Chromium mg/L (ppm)</b>
<b>TFB</b>	TFB-E002	01-APR-10	0.02	NA
	TFB-E002	08-MAY-10	0.02	NA
	TFB-E002	01-JUN-10	0.019	NA
<b>TFC</b>	TFC-E003	01-APR-10	0.019	NA
	TFC-E003	08-MAY-10	0.022	NA
	TFC-E003	01-JUN-10	0.02	NA
<b>TFC-E</b>	MTU1-E	12-APR-10	0.0029	NA
	MTU1-E	05-MAY-10	0.0047	NA
	MTU1-E	22-JUN-10	0.0018	NA
<b>TFC-SE</b>	PTU1-E	02-APR-10	0.031	NA
	PTU1-E	07-MAY-10	0.031	NA
	PTU1-E	01-JUN-10	0.028	NA

<sup>a</sup>A discharge limit of 0.050 ppm is set for total chromium during the dry season (April 1-November 30), and no limit is set for total chromium for the wet season (December 1-March 31); however, a limit of 0.022 ppm hexavalent chromium applies during the wet season. Discharge limits are defined in the Explanation of Significant Differences for metals discharge limits (April 1997).

Shaded values exceeded the discharge limit. See text for explanation.

**Table A-5. Bioassay, turbidity, and chloride analyses of influent and effluent samples by treatment facility.**

<b>Treatment Facility</b>	<b>Sample Station</b>	<b>Date Sampled</b>	<b>Aquatic Bioassay<sup>a</sup> Percent Survival</b>	<b>Turbidity Nephelometric Turbidity Units (NTU)</b>	<b>Chloride (mg/L)</b>
<b>TFA</b>	TFA-I001	01-APR-10	NA	NA	83
<b>TFA</b>	TFA-E001	01-APR-10	100 (100)	<0.1	82

<sup>a</sup>Test species was Fathead minnow and the test duration was 96 hours.

Percent survival in the control group samples shown in parentheses.

Note: NA = not applicable

Table A-6. Metals analyses of influent and effluent samples by treatment facility as compared to the instantaneous Maximum.

	Antimony	Arsenic	Beryllium	Boron	Cadmium	Copper	Cyanide	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
	<-	-	-	-	-	-	mg/L (ppm)	-	-	-	-	-	-	-	-	->
Dry Season <sup>a</sup> (April 1 - November 30)	0.006	0.05	0.004	NA	0.005	1.3	NA	NA	0.015	NA	0.002	0.1	0.05	0.1	0.002	NA
<b>Sample Station</b>	<b>Date Sampled</b>															
<b>TFD</b>																
TFD-E004	29-JUN-10	NA	NA	NA	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

<sup>a</sup>The Explanation of Significant Differences for metals discharge identifies the Instantaneous Maximum concentrations for the dry season (April 1 - November 30).

NA = not applicable

Numbers in **BOLD** print indicate positive values above the detection limit.

Shaded values exceeded the discharge limit. See text for explanation.

**Table A-7. Radiological analyses of effluent and receiving waters by treatment facility.**

<b>Treatment Facility</b>	<b>Sample Station</b>	<b>Date Sampled</b>	<b>Gross Alpha &lt;-</b>	<b>Gross Beta pCi/L</b>	<b>Tritium -&gt;</b>
<b>TFE-SE</b>	W-359	06-APR-10	<2	<3	<100
<b>TFE-SW</b>	MTU03-I	08-APR-10	NA	NA	<b>382</b>
<b>TF406-NW</b>	W-1801	15-APR-10	NA	NA	<100

Numbers in **BOLD** print indicate positive values above the detection limit.

## Explanation of Abbreviations

TFA-I001 is a sampling port located immediately prior to the TFA Treatment System.

TFA-E001 is a sampling port located immediately after the TFA Treatment System, at the beginning of the discharge pipeline.

TFA receiving water is routinely sampled at the TFG-ASW location.

TFA-W-I is an influent sampling port prior to the sediment bag filter immediately following W-404.

TFA-W-E is an effluent sampling port immediately following the sediment bag filter; the water is then discharged to the Livermore Water Reclamation Plant (LWRP).

TFB-I002 is a sampling port located immediately prior to the TFB Treatment System.

TFB-E002 is a sampling port located immediately after the TFB Treatment System, at the beginning of the discharge pipeline.

TFB-R002 is a sampling station in the drainage ditch north of TFB, located approximately 75 ft downstream from the discharge point.

TFC-I003 is a sampling port located immediately prior to the TFC Treatment System.

TFC-E003 is a sampling port located immediately after the TFC Treatment System, at the beginning of the discharge pipeline.

TFC-R003 is a sampling station in Arroyo Las Positas, located approximately 75 ft downstream from the TFC discharge point.

TFD-I004 is a sampling port located immediately prior to the TFD Treatment System.

TFD-E004 is a sampling port located immediately after the TFD Treatment System, prior to discharge to the Drainage Retention Basin or to the underground discharge pipeline leading to Arroyo Las Positas.

TFD-R004 is now combined with and collected at the TFC-R003 location. Results are reported under TFC-R003, as approved by the RWQCB.

CRD1-I is a sampling port located immediately prior to the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1).

CRD1-E is the effluent from the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1) and then reinjected at W-1302.

CRD2-I is a sampling port located immediately prior to the catalytic columns in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2).

CRD2-E is the effluent from the last catalytic column in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2) and then reinjected at W-1610.

GTU01-I is a sampling port located immediately prior to GTU01, which is currently operating in the TFG-1 area.

GTU01-E is a sampling port located immediately after GTU01, which is currently operating in the TFG-1 area.

GTU01 receiving water is routinely sampled at the TFG-ASW location.

GTU03-I is a sampling port located immediately prior to GTU03, which is currently operating in the TF406 Northwest area.

GTU03-E is a sampling port located immediately after GTU03, which is currently operating in the TF406 Northwest area.

GTU03 receiving water is routinely sampled at the TFC-R003 location.

GTU07-I is a sampling port located immediately prior to GTU07, which is currently operating in the TFE Hotspot area.

GTU07-E is a sampling port located immediately after GTU07, which is currently operating in the TFE Hotspot area.

GTU07 receiving water is routinely sampled at the TFC-R003 location.

GTU09-I is a sampling port located immediately prior to GTU09, which is currently operating in the TF5475 area.

GTU09-E is a sampling port located immediately after GTU09, which is currently operating in the TF5475 area.

GTU09 receiving water is routinely sampled at the TFC-R003 location.

MTU02-I is a sampling port located immediately prior to MTU02, which is currently operating in the TFG North area.

MTU02-E is a sampling port located immediately after MTU02, which is currently operating in the TFG North area.

MTU02 receiving water is routinely sampled at the TFC-R003 location.

MTU03-I is a sampling port located immediately prior to MTU03, which is currently operating in the TFE Southwest area.

MTU03-E is a sampling port located immediately after MTU03, which is currently operating in the TFE Southwest area.

MTU03 receiving water is routinely sampled at the TFC-R003 location.

MTU04-I is a sampling port located immediately prior to MTU04, which is currently operating in the TFE Southeast area.

MTU04-E is a sampling port located immediately after MTU04, which is currently operating in the TFE Southeast area.

MTU04 receiving water is routinely sampled at the TFC-R003 location.

MTU05-I is a sampling port located immediately prior to MTU05, which is currently operating in the TFE West area.

MTU05-E is a sampling port located immediately after MTU05, which is currently operating in the TFE West area.

MTU05 receiving water is routinely sampled at the TFC-R003 location.

## Explanation of Abbreviations

MTU1-I is a sampling port located immediately prior to MTU1, which is currently operating in the TFC East area.

MTU1-E is a sampling port located immediately after MTU1, which is currently operating in the TFC East area.

MTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU1-I is a sampling port located immediately prior to PTU-1, which is currently operating in the TFC Southeast area.

PTU1-E is a sampling port located immediately after PTU-1, which is currently operating in the TFC Southeast area.

PTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU2-I is a sampling port located immediately prior to PTU-2, which is currently operating in the TFD South area.

PTU2-E is a sampling port located immediately after PTU-2, which is currently operating in the TFD South area.

PTU2 receiving water is routinely sampled at TFC-R003 during the wet season.

PTU3-I is a sampling port located immediately prior to PTU-3, which is currently operating in the TFE East area.

PTU3-E is a sampling port located immediately after PTU-3, which is currently operating in the TFE East area.

PTU3 receiving water is routinely sampled at the TFC-R003 location.

PTU5-I is a sampling port located immediately prior to PTU-5, which is currently operating in the TF406 extraction location.

PTU5-E is a sampling port located immediately after PTU-5, which is currently operating in the TF406 extraction location.

PTU5 receiving water is routinely sampled at the TFC-R003 location.

PTU6-I is a sampling port located immediately prior to PTU-6, which is currently operating in the TFD West area.

PTU6-E is a sampling port located immediately after PTU-6, which is currently operating in the TFD West area.

PTU6 receiving water is routinely sampled at the TFC-R003 location.

PTU8-I is a sampling port located immediately prior to PTU-8, which is currently operating in the TFD East area.

PTU8-E is a sampling port located immediately after PTU-8, which is currently operating in the TFD East area.

PTU8 receiving water is routinely sampled at the TFC-R003 location.

PTU9-I is a sampling port located immediately prior to PTU-9, which is currently operating in the TFE Northwest area.

PTU9-E is a sampling port located immediately after PTU-9, which is currently operating in the TFE Northwest area.

PTU9 receiving water is routinely sampled at the TFC-R003 location.

PTU10-I is a sampling port located immediately prior to PTU-10, which is currently operating in the TFD Helipad area.

PTU10-E is a sampling port located immediately after PTU-10, which is currently operating in the TFD Helipad area.

PTU10 receiving water is routinely sampled at the TFC-R003 location.

PTU11-I is a sampling port located immediately prior to PTU-11, which is currently operating in the TFD Southeast area.

PTU11-E is a sampling port located immediately after PTU-11, which is currently operating in the TFD Southeast area.

PTU11 receiving water is routinely sampled at the TFC-R003 location.

PTU12-I is a sampling port located immediately prior to PTU-12, which is currently operating in the TFD Southshore area.

PTU12-E is a sampling port located immediately after PTU-12, which is currently operating in the TFD Southshore area.

PTU12 receiving water is routinely sampled at the TFC-R003 location.

STU06-I is a sampling port located immediately prior to STU06, which is operating in the TFA East area.

STU06-E is a sampling port located immediately after STU06, which is operating in the TFA East area.

STU06 receiving water is routinely sampled at the TFG-ASW location.

STU09-I is a sampling port located immediately prior to STU09, which is currently operating in the TF518-North area.

STU09-E is a sampling port located immediately after STU09, which is currently operating in the TF518-North area.

STU09 receiving water is routinely sampled at the TFC-R003 location.

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**Attachment B**

**Self-Monitoring Reports**

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# Self-Monitoring Report

## LLNL Treatment Facility A (TFA)

### AREA TFA

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
               16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 722

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-01-2010  
 Influent pH: 7.5  
 Effluent pH: 7.5  
 Effluent Temperature (°C): 18.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-408	1,148,000	26.5
W-605	381,700	8.8
W-457	251,200	6.1
W-518	0	0.0
W-522	0	0.0
W-614	73,800	10.3
W-712	313,300	7.2
W-714	348,800	8.2
W-903	0	0.0
W-904	1,562,700	36.5
W-109	1,345,700	31.3
W-415	1,584,700	37.1
W-1001	152,500	3.6
W-262	0	0.0
W-1009	1,041,000	23.9
W-1004	500,700	11.7
<hr/>		
Total:	<u>8,704,100</u>	<u>211.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>4,352,050</u>



**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility A (TFA)**  
**AREA TFA**

Arroyo Seco

TFG-ASW

4,352,050

6. Comments:

W-614 went down on 4-6-10 due to pump failure. Facility down on 4-30-10 due to controller failure.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-01-2010

# Self-Monitoring Report

## LLNL Treatment Facility A (TFA)

### AREA TFA

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
           16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 559

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-08-2010

Influent pH: 7.0

Effluent pH: 7.5

Effluent Temperature (°C): 17.7

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-408	892,200	26.7
W-605	292,000	8.8
W-457	174,600	5.3
W-518	0	0.0
W-522	0	0.0
W-614	0	0.0
W-712	191,500	7.4
W-714	259,600	7.8
W-903	26,900	0.0
W-904	1,185,600	35.9
W-415	1,241,400	37.8
W-262	0	0.0
W-109	1,039,100	31.4
W-1009	800,300	24.1
W-1004	385,600	11.9
W-1001	104,300	3.1
Total:	<u>6,593,100</u>	<u>200.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>3,296,550</u>

**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility A (TFA)**  
**AREA TFA**

Arroyo Seco

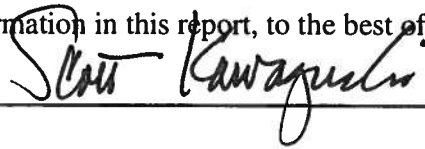
TFG-ASW

3,296,550

6. Comments:

System restarted on 5-4-10. W-903 started on 5-25-10. W-903 secured on 5-26-10. System down on 5-26-10 due to computer issues. Restarted on 5-27-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-02-2010

# Self-Monitoring Report

## LLNL Treatment Facility A (TFA)

### AREA TFA

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>																	
June	<u>01</u>	02	03	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	26	27	<u>28</u>	<u>29</u>	<u>30</u>					

Total monthly time facility operated (hours): 460

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-01-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>18.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-408	623,900	26.5
W-605	240,800	8.7
W-457	162,800	5.9
W-518	0	0.0
W-522	0	0.0
W-614	0	0.0
W-712	210,900	7.5
W-714	213,600	7.9
W-903	0	0.0
W-904	998,600	36.2
W-415	1,043,800	38.6
W-262	0	0.0
W-109	833,700	31.4
W-1009	667,700	24.6
W-1004	314,500	11.9
W-1001	85,700	3.4
Total:	<u>5,396,000</u>	<u>202.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,698,000</u>

**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility A (TFA)**  
**AREA TFA**

Arroyo Seco

TFG-ASW

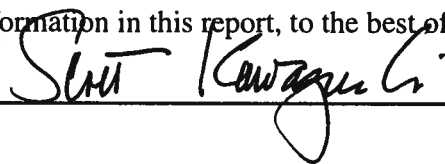
2,698,000

6. Comments:

Secured on 6-1-10 for electrical work. Restarted on 6-4-10. Started W-408 on 6-10-10. Facility down on 6-14-10 due to power surge. Restarted on 6-15-10. System down numerous times during the month due to low air flow caused by blower drive overheating.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: \_\_\_\_\_



Date: 06-30-2010

**Self-Monitoring Report**  
**LLNL Solar Treatment Unit 06 (STU06)**  
**AREA TFA-E**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
              16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 503

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-03-2010  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 16.7

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	43,521	1.5
Total:	<u>43,521</u>	<u>1.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>43,521</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 04-30-2010

**Self-Monitoring Report**  
**LLNL Solar Treatment Unit 06 (STU06)**  
**AREA TFA-E**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 495

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-07-2010  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 22.3

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	40,988	1.3
Total:	<u>40,988</u>	<u>1.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>40,988</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 05-29-2010

**Self-Monitoring Report**  
**LLNL Solar Treatment Unit 06 (STU06)**  
**AREA TFA-E**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>																
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 544

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-02-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>18.3</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	42,297	1.4
Total:	<u>42,297</u>	<u>1.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>42,297</u>

6. Comments:

W-254 pump failed on 6-28-10. Pump wires switched to second pump on 6-29-10 and system restarted.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 06-30-2010



# Self-Monitoring Report

## LLNL Treatment Facility B (TFB)

### AREA TFB

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 702

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-01-2010  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 19.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	224,300	6.0
W-610	269,200	7.1
W-621	264,100	6.9
W-620	184,200	5.2
W-704	671,400	17.8
W-655	329,200	8.8
W-1423	196,000	5.0
Total:	<u>2,138,400</u>	<u>56.8</u>

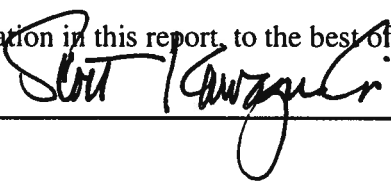
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,138,400</u>

6. Comments:

W-620 down on 4-27-10 due to meter failure. Treatment through hexavalent chromium removal ion exchange columns secured on 4-1-10. End of wet season.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 04-30-2010

**Land Observation Report date:  
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month April Year 2010

2. Date compliance sampling performed 04-01-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>11.1</u>
6-day total precipitation (in):	<u>.67</u>
Average wind speed/direction (mph):	<u>5/ SSW</u>

4. Receiving Data:

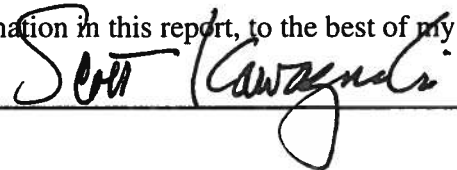
Sample <u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 04-30-2010

**Self-Monitoring Report  
LLNL Treatment Facility B (TFB)  
AREA TFB**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 644

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-08-2010  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 17.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	222,500	5.9
W-610	273,600	7.4
W-621	289,800	7.4
W-620	77,200	5.2
W-704	675,600	17.9
W-655	363,400	9.5
W-1423	208,400	5.5
Total:	<u>2,110,500</u>	<u>58.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,110,500</u>

6. Comments:

Facility down on 5-16-10 due to low air flow. Restarted on 5-17-10. W-620 started on 5-17-10. Facility down on 5-18-10 due to low air flow. Restarted on 5-19-10. Facility down on 5-11-10 due to computer problem. Restarted on 5-12-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 05-29-2010

**Land Observation Report date:  
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month May Year 2010

2. Date compliance sampling performed 05-08-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>14.2</u>
6-day total precipitation (in):	<u>0</u>
Average wind speed/direction (mph):	<u>6/ SSW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kauragan Date: 05-29-2010

**Self-Monitoring Report  
LLNL Treatment Facility B (TFB)  
AREA TFB**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>												
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 778

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-01-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>18.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	272,800	5.7
W-610	322,800	7.0
W-621	350,100	7.5
W-620	235,600	5.2
W-704	810,600	17.6
W-655	425,500	9.6
W-1423	250,400	5.3
Total:	<u>2,667,800</u>	<u>57.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,667,800</u>

6. Comments:

System went down on 6-14-10 due to a power surge. Restarted on 6-15-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shu Kawaguchi

Date: 06-30-2010

**Land Observation Report date:  
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month June Year 2010

2. Date compliance sampling performed 06-01-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>15.3</u>
6-day total precipitation (in):	<u>.13</u>
Average wind speed/direction (mph):	<u>6/ SSW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 06-30-2010

**Self-Monitoring Report  
LLNL Treatment Facility C (TFC)  
AREA TFC**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	10	11	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 595

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-01-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>17.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	206,597	13.5
W-1015	139,934	3.4
W-1103	64,367	1.6
W-1104	837,664	20.3
W-1116	4,287	1.3
W-1102	108,880	2.5
Total:	<u>1,361,729</u>	<u>42.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,361,729</u>

6. Comments:

Treatment through ion exchange columns secured on 4-1-10. End of wet season. System down on 4-1-10 due to blown fuse. Fuse replaced and system restarted on 4-2-10. System down on 4-7-10. Discharge pump changed out and system restarted on 4-7-10. System secured on 4-9-10 for electrical work on W-701. Work completed and system restarted on 4-12-10. Started W-701 on 4-13-10. Secured system for strategy upgrades on 4-16-10. Upgrades completed and system restarted on 4-17-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility C (TFC)**  
**AREA TFC**

Operator Signature:  Date: 04-30-2010



**Land Observation Report date:  
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month April Year 2010

2. Date compliance sampling performed 04-01-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>11.1</u>
6-day total precipitation (in):	<u>.67</u>
Average wind speed/direction (mph):	<u>5/ SSW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 04-30-2010

**Self-Monitoring Report  
LLNL Treatment Facility C (TFC)  
AREA TFC**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 677

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-08-2010  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 18.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	527,408	13.6
W-1015	163,700	4.2
W-1103	79,653	1.8
W-1104	1,060,256	26.5
W-1116	10,068	0.0
W-1102	141,706	3.7
Total:	<u>1,982,791</u>	<u>49.8</u>

5. Discharge Information:

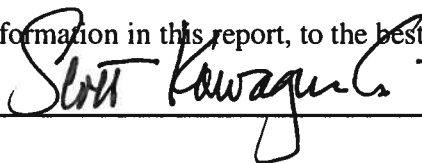
<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,982,791</u>

6. Comments:

W-701 started on 5-1-10. Started W-1116 on 5-24-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: \_\_\_\_\_



Date: 05-28-2010

**Land Observation Report date:  
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month May Year 2010

2. Date compliance sampling performed 05-08-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>14.2</u>
6-day total precipitation (in):	<u>0</u>
Average wind speed/direction (mph):	<u>6/ SSW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-28-2010

**Self-Monitoring Report  
LLNL Treatment Facility C (TFC)  
AREA TFC**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>												
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 801

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-01-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>19.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	623,368	13.2
W-1015	197,680	4.2
W-1103	101,109	2.5
W-1104	1,271,984	26.7
W-1116	87,379	1.8
W-1102	172,002	3.4
Total:	<u>2,453,522</u>	<u>51.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,453,522</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 06-30-2010

**Land Observation Report date:  
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month June Year 2010

2. Date compliance sampling performed 06-01-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>15.3</u>
6-day total precipitation (in):	<u>.13</u>
Average wind speed/direction (mph):	<u>6/SSW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 06-30-2010

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 1 (MTU1)**  
**AREA TFC-E**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 717

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-12-2010  
Influent pH: 6.5  
Effluent pH: 7.0  
Effluent Temperature (°C): 19.9

4. Wellfield Data:

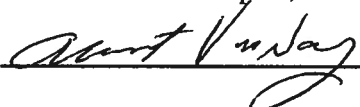
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-413	747,483	17.3
W-368	246,099	5.7
Total:	<u>993,582</u>	<u>23.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>993,582</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-01-2010

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 1 (MTU1)**  
**AREA TFC-E**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 614

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-05-2010  
Influent pH: 6.5  
Effluent pH: 7.0  
Effluent Temperature (°C): 20.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-413	637,823	17.2
W-368	184,893	5.6
Total:	<u>822,716</u>	<u>22.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>822,716</u>

6. Comments:

Facility had down time on 5-1, 5-13, and 5-14 for resin work and belsperse injection upgrades

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-29-2010

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 1 (MTU1)**  
**AREA TFC-E**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

June	01	02	03	04	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 570

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-22-2010</u>
Influent pH:	<u>6.5</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>20.9</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-413	570,640	14.0
W-368	196,086	5.8
Total:	<u>766,726</u>	<u>19.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>766,726</u>

6. Comments:

Facility was down waiting for new resin. Facility also had down time for installation and testing of new belsperes system.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-09-2010



**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 1 (PTU1)**  
**AREA TFC-SE**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 730

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-02-2010  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 19.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	347,474	8.1
W-2201	538,259	12.6
Total:	<u>885,733</u>	<u>20.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>885,733</u>

6. Comments:

Hexavalent chromium ion exchange resin columns removed from service on 4-3-10. End of wet season.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kowagun Date: 04-30-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 1 (PTU1)**  
**AREA TFC-SE**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 601

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-07-2010  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 20.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	283,552	8.1
W-2201	442,588	12.5
Total:	<u>726,140</u>	<u>20.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>726,140</u>

6. Comments:

System secured on 5-7-10 for electrical work. System started on 5-10-10. System went down on 5-19-10 due to possible power surge. System started on 5-20-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 05-28-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 1 (PTU1)**  
**AREA TFC-SE**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>												
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	06	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 754

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-01-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	353,702	7.9
W-2201	556,319	12.4
Total:	<u>910,021</u>	<u>20.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>910,021</u>

6. Comments:

System down on 6-5-10 due to power surge. Restarted on 6-7-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 06-30-2010

**Self-Monitoring Report  
LLNL Treatment Facility D (TFD)  
AREA TFD**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): **63**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-28-2010**  
Influent pH: **7.0**  
Effluent pH: **7.0**  
Effluent Temperature (°C): **20.2**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-907-2	0	0.0
W-653	0	0.0
W-906	5,100	4.0
W-351	4,500	1.1
W-1206	0	0.0
W-1208	93,400	22.5
W-2011	0	0.0
W-2101	0	0.0
W-2102	0	0.0
Total:	<u><b>103,000</b></u>	<u><b>27.6</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>103,000</b></u>

6. Comments:

Leaks repaired and system started on 4-26-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **04-30-2010**

**Self-Monitoring Report  
LLNL Treatment Facility D (TFD)  
AREA TFD**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
            16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 680

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-08-2010  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 20.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-907-2	0	0.0
W-653	0	0.0
W-906	23,200	3.9
W-351	45,800	1.1
W-1206	1,500	0.0
W-1208	914,100	22.9
W-2101	5,000	0.0
W-2102	0	0.0
W-2011	0	0.0
Total:	<u>989,600</u>	<u>27.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>989,600</u>

6. Comments:

Secured W-906 for hydraulic test. Started W-2101 on 5-19-10. Started W-906 on 5-26-10. Started W-1206 on 5-28-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kauraga Date: 05-29-2010

# Self-Monitoring Report LLNL Treatment Facility D (TFD) AREA TFD

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>												
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 798

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-02-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-907-2	0	0.0
W-653	0	0.0
W-906	69,600	3.9
W-351	55,600	1.1
W-1206	57,100	0.0
W-1208	1,078,900	22.6
W-2101	2,200	0.0
W-2102	0	0.0
W-2011	0	0.0
Total:	<u>1,263,400</u>	<u>27.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,219,800</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>43,600</u>

6. Comments:

Started W-1206 on 5-28-10. W-1206 down on 6-1-10 due to failed relay. Begin diverting effluent for irrigation use.

**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility D (TFD)**  
**AREA TFD**

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 06-30-2010

# Self-Monitoring Report

## LLNL Portable Treatment Unit 8 (PTU8)

### AREA TFD-E

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 693

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-02-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>17.9</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1253	0	0.0
W-1255	0	0.0
W-1307	242,100	6.0
W-1550	62,100	1.7
W-1306	6,200	0.2
W-1301	39,100	0.9
W-1404	7,100	0.5
W-1303	0	0.0
W-2006	100	0.4
W-2203	0	0.0
Total:	<u>356,700</u>	<u>9.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>356,700</u>

6. Comments:

System down on 4-5-10 due to low flow. Restarted on 4-5-10. Facility down on 4-14-10 due to high stripper level. Restarted on 4-15-10. Hours estimated from logbook.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.



**Self-Monitoring Report (cont'd)**  
**LLNL Portable Treatment Unit 8 (PTU8)**  
**AREA TFD-E**

Operator Signature: Scott Kowagun Co. Date: 04-30-2010

# Self-Monitoring Report

## LLNL Portable Treatment Unit 8 (PTU8)

### AREA TFD-E

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27

Total monthly time facility operated (hours): 633

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-08-2010  
 Influent pH: 7.0  
 Effluent pH: 7.5  
 Effluent Temperature (°C): 18.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1253	0	0.0
W-1255	0	0.0
W-1307	229,500	6.0
W-1550	46,200	1.6
W-1306	9,800	0.3
W-1301	39,400	1.0
W-1404	5,300	0.5
W-1303	0	0.0
W-2006	0	0.0
W-2203	4,500	0.0
Total:	<u>334,700</u>	<u>9.4</u>

5. Discharge Information:

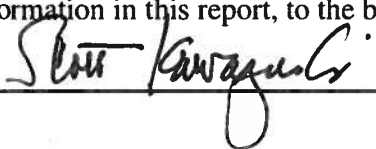
<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>334,700</u>

6. Comments:

Facility secured on 5-19-10 for work on W2203. Started system on 5-20-10.  
 W-2203 started and sampled on 5-21-10. Secured W-2203 after sampling.  
 Secured system on 5-27-10 for accumulator update. Started system on 5-28-10.  
 Facility hours estimated from logbook.

**Self-Monitoring Report (cont'd)**  
**LLNL Portable Treatment Unit 8 (PTU8)**  
**AREA TFD-E**

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-29-2010

# Self-Monitoring Report

## LLNL Portable Treatment Unit 8 (PTU8)

### AREA TFD-E

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>											
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 759

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-02-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1253	0	0.0
W-1255	0	0.0
W-1307	275,200	5.9
W-1550	50,600	2.0
W-1306	8,100	0.3
W-1301	45,800	0.9
W-1404	400	0.4
W-1303	0	0.0
W-2006	400	0.2
W-2203	40,300	1.0
Total:	<u>420,800</u>	<u>10.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>420,800</u>

6. Comments:

System started on 5-28-10. System down on 6-27-10 due to Snap I/O fault.  
 Restarted on 6-28-10. System down on 6-28-10 due to Snap I/O fault. Restarted  
 on 6-29-10. Facility hours estimated from logbook.

**Self-Monitoring Report (cont'd)**  
**LLNL Portable Treatment Unit 8 (PTU8)**  
**AREA TFD-E**

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 06-30-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 2 (PTU2)**  
**AREA TFD-S**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
              16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 719

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-21-2010  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 20.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	775,096	18.0
W-1510	314,905	9.7
W-1504	351,559	8.1
Total:	<u>1,441,560</u>	<u>35.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,441,560</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-05-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 10 (PTU10)**  
**AREA TFD-HPD**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): **698**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-08-2010**

Influent pH: **7.5**

Effluent pH: **7.6**

Effluent Temperature (°C): **20.7**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	<b>621,536</b>	<b>15.0</b>
W-1650	<b>0</b>	<b>0.0</b>
W-1651	<b>0</b>	<b>0.0</b>
W-1653	<b>0</b>	<b>0.0</b>
W-1654	<b>0</b>	<b>0.0</b>
W-1656	<b>0</b>	<b>0.0</b>
W-1657	<b>0</b>	<b>0.0</b>
W-1551	<b>0</b>	<b>0.0</b>
W-1652	<b>0</b>	<b>0.0</b>
W-1552	<b>0</b>	<b>0.0</b>
W-1655	<b>0</b>	<b>0.0</b>
Total:	<u><b>621,536</b></u>	<u><b>15.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>621,536</b></u>

6. Comments:

The facility did not run on 4/30/10 for most of the day due to a discharge pump malfunction.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

**Self-Monitoring Report (cont'd)**  
**LLNL Portable Treatment Unit 10 (PTU10)**  
**AREA TFD-HPD**

Operator Signature: Billy D. Fink Date: 05-04-2010



# Self-Monitoring Report

## LLNL Portable Treatment Unit 10 (PTU10)

### AREA TFD-HPD

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
           16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 607

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-13-2010

Influent pH: 7.5

Effluent pH: 7.5

Effluent Temperature (°C): 21.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	539,983	15.0
W-1650	0	0.0
W-1651	0	0.0
W-1653	0	0.0
W-1654	0	0.0
W-1656	0	0.0
W-1657	0	0.0
W-1551	0	0.0
W-1652	0	0.0
W-1552	0	0.0
W-1655	0	0.0
Total:	<u>539,983</u>	<u>15.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>539,983</u>

6. Comments:

The facility did not run May 1 and May 2 due to discharge pump problems.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

**Self-Monitoring Report (cont'd)**  
**LLNL Portable Treatment Unit 10 (PTU10)**  
**AREA TFD-HPD**

Operator Signature: Billy D. Kuhl Date: 06-01-2010

# Self-Monitoring Report

## LLNL Portable Treatment Unit 10 (PTU10)

### AREA TFD-HPD

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>																
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 752

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-08-2010

Influent pH: 7.5

Effluent pH: 7.5

Effluent Temperature (°C): 21.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	669,596	15.0
W-1650	0	0.0
W-1651	0	0.0
W-1653	0	0.0
W-1654	0	0.0
W-1656	0	0.0
W-1657	0	0.0
W-1551	0	0.0
W-1652	0	0.0
W-1552	0	0.0
W-1655	0	0.0
Total:	<u>669,596</u>	<u>15.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>669,596</u>

6. Comments:

The facility was shut down at 1411 on 6-16-10 and restarted at 0918 on 6-18-10 in order to make a change in the W-1254 pipeline.

**Self-Monitoring Report (cont'd)**  
**LLNL Portable Treatment Unit 10 (PTU10)**  
**AREA TFD-HPD**

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Field Date: 07-07-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 2 (PTU2)**  
**AREA TFD-S**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
            16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 589

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-12-2010  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 22.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	629,336	18.0
W-1510	342,768	9.7
W-1504	285,466	8.2
Total:	<u>1,257,570</u>	<u>35.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,257,570</u>

6. Comments:

System secure from 5/7/10 to 5/11/10 for electrical upgrades.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-02-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 2 (PTU2)**  
**AREA TFD-S**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>																
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 794

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-09-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.7</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	845,248	17.9
W-1510	449,665	9.5
W-1504	382,576	8.1
Total:	<u>1,677,489</u>	<u>35.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,677,489</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 11 (PTU11)**  
**AREA TFD-SE**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	06	07	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	14	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 571

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-12-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>20.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	347,819	10.5
W-1308	98,451	2.8
W-1904	0	0.0
W-1403	0	0.0
W-2005	7,361	0.1
SIP-ETC-201	0	0.0
Total:	<u>453,631</u>	<u>13.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>453,631</u>

6. Comments:

Facility was discovered shutdown 4/5/10 due to unscheduled power outage, causing failure of OPTO system power supply. Facility was restarted 4/8/10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 05-12-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 11 (PTU11)**  
**AREA TFD-SE**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 677

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-01-2010  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 20.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	412,650	10.5
W-1308	123,533	3.2
W-1904	0	0.0
W-1403	1,639	0.0
W-2005	7,435	0.1
SIP-ETC-201	0	0.0
Total:	<u>545,257</u>	<u>13.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>545,257</u>

6. Comments:

Facility was secured 5/12 @ 1300 hrs. to perform SOP 3.2 on W-1403 and reload OPTO code. Facility was restarted @ 14:45 hrs. Facility was secured 5/13 @ 10:45 hrs to set W-1403 low level set point. Facility was restarted @ 11:25. W-1403 was started 5/27/10 operating at 1.5 GPM.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Horner Date: 06-01-2010



**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 11 (PTU11)**  
**AREA TFD-SE**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>												
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 798

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-02-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	484,765	10.3
W-1308	145,027	3.0
W-1904	0	0.0
W-1403	68,023	1.4
W-2005	5,723	0.1
SIP-ETC-201	0	0.0
Total:	<u>703,538</u>	<u>14.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>703,538</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Horn Date: 07-02-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 12 (PTU12)**  
**AREA TFD-SS**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): **713**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-22-2010**  
Influent pH: **7.0**  
Effluent pH: **7.5**  
Effluent Temperature (°C): **20.8**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	312,320	7.3
W-1603	549,723	13.5
W-1602	222,773	5.2
W-1601	33,185	0.9
Total:	<u><b>1,118,001</b></u>	<u><b>26.9</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>1,118,001</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-04-2010**

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 12 (PTU12)**  
**AREA TFD-SS**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 678

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-13-2010

Influent pH: 7.5

Effluent pH: 7.5

Effluent Temperature (°C): 22.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	295,683	7.3
W-1603	516,636	12.7
W-1602	208,462	5.1
W-1601	36,551	0.9
Total:	<u>1,057,332</u>	<u>26.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,057,332</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2010

# Self-Monitoring Report

## LLNL Portable Treatment Unit 12 (PTU12)

### AREA TFD-SS

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>												
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 800

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-07-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.3</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	346,257	7.2
W-1603	600,000	12.5
W-1602	242,673	5.1
W-1601	41,359	0.8
Total:	<u>1,230,289</u>	<u>25.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,230,289</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 6 (PTU6)**  
**AREA TFD-W**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
             **16** **17** **18** **19** **20** **21** **22** **23** 24 25 **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): **653**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-14-2010**  
Influent pH: **7.5**  
Effluent pH: **7.5**  
Effluent Temperature (°C): **21**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	220,434	9.8
W-1216	222,071	9.6
W-1902	630,050	15.9
Total:	<u><b>1,072,555</b></u>	<u><b>35.3</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>1,072,555</b></u>

6. Comments:

System secure from 4/23/10 to 4/26/10 for well recovery per TFD-W EWFSUP.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-05-2010**

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 6 (PTU6)**  
**AREA TFD-W**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 678

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-11-2010  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 21.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	338,953	9.7
W-1216	249,340	5.3
W-1902	689,551	15.1
Total:	<u>1,277,844</u>	<u>30.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,277,844</u>

6. Comments:

TFD-W E.W.F.S.U.P. concluded on 5/18/10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 6 (PTU6)**  
**AREA TFD-W**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>												
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 799

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-07-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	448,160	8.9
W-1216	461,016	9.6
W-1902	820,173	17.4
Total:	<u>1,729,349</u>	<u>35.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,729,349</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 11 (VES11)

### AREA VTFD-ETCS

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
              16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1904	0	0.0	0	0	655
W-ETC-2004A	216,545	5.4	-6.77	66	655
W-ETC-2004B	224,891	4.4	-5.43	66	655
W-ETC-2003	545,455	12.8	-5.39	66	655
SIP-ETC-201	0	0.0	0	0	655
Total:	<u>986,891</u>	<u>22.6</u>			

4. Comments:

Facility shutdown 4/5/10 @ 12:25 AM due to unexpected power outage. Facility was restarted 4/8/10 @ 13:15 hrs. Month end volumes entered on this report have been amended due to well totalizers accumulating while facility offline.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-18-2010



# Self-Monitoring Report

## LLNL Vapor Extraction System 11 (VES11)

### AREA VTFD-ETCS

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

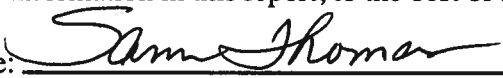
May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1904	0	0.0	0	0	0
W-ETC-2004A	231,605	5.5	-6.06	62	685
W-ETC-2004B	230,126	4.3	-4.77	62	685
W-ETC-2003	628,516	15.0	-1.28	62	685
SIP-ETC-201	0	0.0	0	0	0
Total:	<u>1,090,247</u>	<u>24.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 11 (VES11)

### AREA VTFD-ETCS

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

May	<u>29</u>	<u>30</u>	<u>31</u>																	
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	05	06	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>					

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	0	0.0	0	0	0
W-ETC-2004A	242,972	5.4	-6.35	64	728
W-ETC-2004B	306,810	5.5	-1.22	64	728
W-ETC-2003	670,395	15.1	-1.24	64	728
SIP-ETC-201	0	0.0	0	0	0
Total:	<u>1,220,177</u>	<u>26.0</u>			

4. Comments:

Facility was secured 6/4/10 to replace and calibrate differential pressure transducers at SVE wells. Facility was restarted 6/7/10.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 07-02-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 07 (VES07)

### AREA VTFD-HPD

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
              16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1552	0	0.0	0	0	0
W-1650	0	0.0	0	0	0
W-1651	0	0.0	0	0	0
W-1653	0	0.0	0	0	0
W-1654	0	0.0	0	0	0
W-1652	0	0.0	0	0	0
W-1656	0	0.0	0	0	0
W-1657	0	0.0	0	0	0
W-1655	0	0.0	0	0	0
W-HPA-002A	763,295	17.7	-24.9	70	692
W-HPA-002B	0	0.0	0	0	0
<hr/>					
Total:	<u>763,295</u>	<u>17.7</u>			

4. Comments:

The facility was down for most of the 5th (due to a power outage/computer problem) and was restarted on the 6th at about 0957. A vapor sample was taken at W-HPA-002A on 4/26/10.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Kuntz Jr. Date: 05-04-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 07 (VES07)

### AREA VTFD-HPD

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
           16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1552	0	0.0	0	0	0
W-1650	0	0.0	0	0	0
W-1651	0	0.0	0	0	0
W-1653	0	0.0	0	0	0
W-1654	0	0.0	0	0	0
W-1652	0	0.0	0	0	0
W-1656	0	0.0	0	0	0
W-1657	0	0.0	0	0	0
W-1655	0	0.0	0	0	0
W-HPA-002A	711,788	18.0	-23.5	82	646
W-HPA-002B	0	0.0	0	0	0
<hr/>					
Total:	<u>711,788</u>	<u>18.0</u>			

4. Comments:

The facility was shut down at 0828 on 5/27 to change the vapor pipeline layout.  
 The system was restarted at 1500 on 5/28.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Kuhl Date: 06-01-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 07 (VES07)

### AREA VTFD-HPD

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

May	<u>29</u>	<u>30</u>	<u>31</u>																	
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>					

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1552	0	0.0	0	0	0
W-1650	0	0.0	0	0	0
W-1651	0	0.0	0	0	0
W-1653	0	0.0	0	0	0
W-1654	0	0.0	0	0	0
W-1652	0	0.0	0	0	0
W-1656	0	0.0	0	0	0
W-1657	0	0.0	0	0	0
W-1655	0	0.0	0	0	0
W-HPA-002A	861,440	17.9	-23.1	87	792
W-HPA-002B	0	0.0	0	0	0
Total:	<u>861,440</u>	<u>17.9</u>			

4. Comments:  
NA

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Kuhl Jr. Date: 07-07-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 13 (VES13)

### AREA VTFD-HS

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-653</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2101</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2102</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2011</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<hr/>					
<b>Total:</b>	<b><u>0</u></b>	<b><u>0.0</u></b>			

4. Comments:

System did not run. No ground water extraction from W-653 and W-2101.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 04-30-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 13 (VES13)

### AREA VTFD-HS

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28		

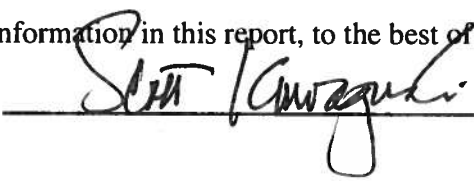
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-653	0	0.0	0	0	0
W-2101	0	0.0	0	0	0
W-2102	0	0.0	0	0	0
W-2011	0	0.0	0	0	0
<hr/>					
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

System did not run. No ground water extraction from W-653 and W-2101.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 13 (VES13)

### AREA VTFD-HS

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

May	29	30	31												
June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-653	0	0.0	0	0	0
W-2101	0	0.0	0	0	0
W-2102	0	0.0	0	0	0
W-2011	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

System did not run. No ground water extraction from W-653 and W-2101.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 07-01-2010



**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 3 (PTU3)**  
**AREA TFE-E**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
              16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 706

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-15-2010  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 21.6

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	335,701	8.0
W-1109	100,077	2.3
W-1903	0	0.0
W-1909	0	0.0
W-2305	96	0.0
Total:	<u>435,874</u>	<u>10.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>435,874</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-04-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 3 (PTU3)**  
**AREA TFE-E**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 673

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-13-2010  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 21.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	324,565	8.1
W-1109	94,566	2.3
W-1903	0	0.0
W-1909	0	0.9
W-2305	220	2.2
Total:	<u>419,351</u>	<u>13.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>419,351</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 3 (PTU3)**  
**AREA TFE-E**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>												
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 808

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-03-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	387,259	8.1
W-1109	112,097	2.3
W-1903	0	0.0
W-1909	0	0.0
W-2305	115	2.2
Total:	<u>499,471</u>	<u>12.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>499,471</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2010

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 07 (GTU07)**  
**AREA TFE-HS**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2105	0	0.0
W-2012	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

System secure pending well pump and controller replacement.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: 

Date: 05-05-2010

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 07 (GTU07)**  
**AREA TFE-HS**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28		

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2105	0	0.0
W-2012	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

System secure pending well pump and controller replacement.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2010

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 07 (GTU07)**  
**AREA TFE-HS**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	29	30	31																
June	01	02	03	04	05	06	07	08	09	<u>10</u>	<u>11</u>	12	13	14	15				
		16	17	18	19	20	<u>21</u>	22	<u>23</u>	<u>24</u>	25	26	27	28	29	30			

Total monthly time facility operated (hours): 1

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-21-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2105	40	0.0
W-2012	211	4.1
Total:	<u>251</u>	<u>4.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>251</u>

6. Comments:

System was run intermittently, in the month of June, for: initial sampling of wells, testing and verification of system components.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-14-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 9 (PTU9)**  
**AREA TFE-NW**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 718

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-21-2010  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 21.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	750,652	17.5
W-1409	0	0.0
Total:	<u>750,652</u>	<u>17.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>750,652</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-05-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 9 (PTU9)**  
**AREA TFE-NW**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 614

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-11-2010  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 22

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	638,368	17.7
W-1409	0	0.0
Total:	<u>638,368</u>	<u>17.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>638,368</u>

6. Comments:

System secure from 5/7/10 to 5/10/10 for electrical upgrades.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2010



**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 9 (PTU9)**  
**AREA TFE-NW**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>												
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 795

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-07-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	824,321	17.5
W-1409	3,915	0.0
Total:	<u>828,236</u>	<u>17.5</u>

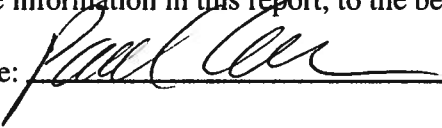
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>828,236</u>

6. Comments:

W-1409 repairs complete, well restarted on 6/28/10 per TFE-NW W-1409  
Extraction Well Hydraulic Test plan.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2010

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 04 (MTU04)**  
**AREA TFE-SE**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 708

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-12-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>17.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	344,626	8.1
Total:	<u>344,626</u>	<u>8.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>344,626</u>

6. Comments:

Facility was discovered shutdown due to unscheduled power outage 4/5/10.  
Facility was restarted 4/5/10 @ 11:00 hrs.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 04-30-2010

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 04 (MTU04)**  
**AREA TFE-SE**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
            16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 669

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-05-2010  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 21

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	324,265	8.0
Total:	<u>324,265</u>	<u>8.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>324,265</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 06-01-2010

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 04 (MTU04)**  
**AREA TFE-SE**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>												
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 740

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>05-29-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	359,656	8.0
Total:	<u>359,656</u>	<u>8.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>359,656</u>

6. Comments:

Facility was found shutdown due to power outage that occurred 6/19/10 @ 06:00 hrs. Facility was restarted 6/21/10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 07-01-2010

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 03 (MTU03)**  
**AREA TFE-SW**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 718

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-08-2010  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 19.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1518	78,131	1.8
W-1522	33	1.7
W-1520	45	1.2
Total:	<u>78,209</u>	<u>4.7</u>

5. Discharge Information:

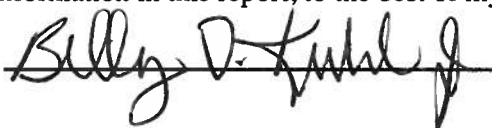
<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>78,209</u>

6. Comments:

W-1520 and W-1522 were started for approximately 10-15 minutes on 4/20/10 in order to obtain quarterly E906 samples.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:



Date: 05-04-2010

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 03 (MTU03)**  
**AREA TFE-SW**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
         **16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **664**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **05-13-2010**  
Influent pH: **7.5**  
Effluent pH: **7.5**  
Effluent Temperature (°C): **17.6**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1518</b>	<b>74,786</b>	<b>1.8</b>
<b>W-1522</b>	<b>0</b>	<b>0.0</b>
<b>W-1520</b>	<b>0</b>	<b>0.0</b>
<b>Total:</b>	<u><b>74,786</b></u>	<u><b>1.8</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>74,786</b></u>

6. Comments:  
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-01-2010**

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 03 (MTU03)**  
**AREA TFE-SW**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>																	
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>					

Total monthly time facility operated (hours): 786

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-08-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>18.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1518	85,765	1.8
W-1522	0	0.0
W-1520	0	0.0
Total:	<u>85,765</u>	<u>1.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>85,765</u>

6. Comments:

6-4-10, replaced pressure gauges on W-1518 and W-1522 influent lines.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy J. Finkel Jr. Date: 07-07-2010

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 05 (MTU05)**  
**AREA TFE-W**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 718

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-08-2010

Influent pH: 7.5

Effluent pH: 7.5

Effluent Temperature (°C): 22.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-305	374,224	8.6
W-292	252,712	5.8
Total:	<u>626,936</u>	<u>14.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>626,936</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy O. Kuhl Date: 05-04-2010



**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 05 (MTU05)**  
**AREA TFE-W**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
            16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 664

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-13-2010

Influent pH: 7.5

Effluent pH: 7.5

Effluent Temperature (°C): 22.3

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-305	345,831	8.7
W-292	233,943	5.8
Total:	<u>579,774</u>	<u>14.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>579,774</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Bethy O. Smith Date: 06-01-2010

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 05 (MTU05)**  
**AREA TFE-W**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>																	
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>					

Total monthly time facility operated (hours): 787

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-08-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-305	405,868	8.6
W-292	273,586	5.8
Total:	<u>679,454</u>	<u>14.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>679,454</u>

6. Comments:

6-4-2010, replaced pressure gauges at W-305 influent line and MTU05-E.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Kuhl Date: 07-07-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 16 (VES16)

### AREA VTFE-ELM

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1909	0	0.0	0	0	0
W-1903	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-003	879,435	20.0	-1.68	56	720
W-543-1908	0	0.0	0	0	0
W-543-001	0	0.0	0	0	0
Total:	<u>879,435</u>	<u>20.0</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 04-30-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 16 (VES16)

### AREA VTFE-ELM

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

May            01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
                   16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1909	0	0.0	0	0	0
W-1903	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-1908	0	0.0	0	0	0
W-543-003	813,207	20.1	-1.4	68	671
W-543-001	0	0.0	0	0	0
Total:	<u>813,207</u>	<u>20.1</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 06-02-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 16 (VES16)

### AREA VTFF-ELM

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treatment facility operated


May	<u>29</u>	<u>30</u>	<u>31</u>																				
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>								
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>								

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1909	0	0.0	0	0	0
W-1903	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-1908	0	0.0	0	0	0
W-543-003	961,461	19.9	-1.35	67	792
W-543-001	0	0.0	0	0	0
Total:	<u>961,461</u>	<u>19.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-02-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 12 (VES12)

### AREA VTFE-HS

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-ETS-2010B	0	0.0	0	0	0
W-ETS-2010A	446,657	10.3	-.57	50	722
W-ETS-2009	0	0.0	0	0	0
W-ETS-2008A	447,825	10.5	-2.39	50	722
W-ETS-2008B	357,259	8.2	-11.29	50	722
W-2105	0	0.0	0	0	0
Total:	<u>1,251,741</u>	<u>28.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 04-30-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 12 (VES12)

### AREA VTFE-HS

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-ETS-2010B	0	0.0	0	0	0
W-ETS-2010A	300,989	10.2	-.47	64	455
W-ETS-2009	0	0.0	0	0	0
W-ETS-2008A	282,445	10.2	-2.25	64	455
W-ETS-2008B	226,431	8.0	-11.33	64	455
W-2105	0	0.0	0	0	0
Total:	<u>809,865</u>	<u>28.4</u>			

4. Comments:

Facility was secured 5/17/10 to calibrate flow and pressure transducers at W-2105, W-2009 and W-2101B. Preventive maintenance was also performed on vacuum unit. Facility was restarted 5/26/10.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 06-01-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 12 (VES12)

### AREA VTFE-HS

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

May	<u>29</u>	<u>30</u>	<u>31</u>																	
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	12	13	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	22	23	24	25	26	27	28	29	<u>30</u>					

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-2010B	0	0.0	0	0	0
W-ETS-2010A	264,546	9.9	-.37	70	460
W-ETS-2009	0	0.0	0	0	0
W-ETS-2008A	285,282	9.9	-1.57	70	460
W-ETS-2008B	229,484	8.8	-7.99	70	460
W-2105	0	0.0	0	0	0
Total:	<u>779,312</u>	<u>28.6</u>			

4. Comments:

Facility was secured 6/11/10 due to OPTO system communication error. Facility was restarted 6/14/10 @ 14:05 hrs. Found facility shutdown 6/21/10 due to motor overload. Investigation by EE techs revealed vacuum pump motor failure. Unit was removed and McKenna unit MC-3 installed. Facility was restarted 6/30/10.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 07-01-2010



**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 01 (GTU01)**  
**AREA TFG-1**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 715

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-07-2010

Influent pH: 7.5

Effluent pH: 7.5

Effluent Temperature (°C): 20.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	378,800	8.8
Total:	<u>378,800</u>	<u>8.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>378,800</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-04-2010

**Land Observation Report date:  
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month April Year 2010

2. Date compliance sampling performed 04-07-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>9.6</u>
6-day total precipitation (in):	<u>.46</u>
Average wind speed/direction (mph):	<u>5/ S</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-04-2010

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 01 (GTU01)**  
**AREA TFG-1**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
            16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 669

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-12-2010  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 21.3

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	354,869	8.8
Total:	<u>354,869</u>	<u>8.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>354,869</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2010

**Land Observation Report date:  
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month May Year 2010

2. Date compliance sampling performed 05-12-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>12.2</u>
6-day total precipitation (in):	<u>.18</u>
Average wind speed/direction (mph):	<u>7/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2010

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 01 (GTU01)**  
**AREA TFG-1**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>																
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 788

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-14-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	418,396	8.8
Total:	<u>418,396</u>	<u>8.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>418,396</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Paul Cur Date: 07-08-2010

**Land Observation Report date:**  
**TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month June Year 2010

2. Date compliance sampling performed 06-14-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>20</u>
6-day total precipitation (in):	<u>0</u>
Average wind speed/direction (mph):	<u>7/SSW</u>

4. Receiving Data:

Sample <u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2010

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 02 (MTU02)**  
**AREA TFG-N**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): **726**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-23-2010**  
Influent pH: **7.5**  
Effluent pH: **7.5**  
Effluent Temperature (°C): **22.2**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1807</b>	<b>199,319</b>	<b>4.6</b>
<b>W-1806</b>	<b>114,958</b>	<b>2.6</b>
Total:	<u><b>314,277</b></u>	<u><b>7.2</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>314,277</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-05-2010**

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 02 (MTU02)**  
**AREA TFG-N**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 673

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-12-2010  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 22.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1807	196,634	4.8
W-1806	111,627	2.8
Total:	<u>308,261</u>	<u>7.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>308,261</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2010



**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 02 (MTU02)**  
**AREA TFG-N**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>												
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 800

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-14-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1807	241,183	5.1
W-1806	134,998	2.8
Total:	<u>376,181</u>	<u>7.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>376,181</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 5 (PTU5)**  
**AREA TF406**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 727

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-15-2010  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 22.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	173	5.2
W-1310	670,098	15.3
GSW-445	0	0.0
Total:	<u>670,271</u>	<u>20.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>670,271</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-04-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 5 (PTU5)**  
**AREA TF406**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
            16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 678

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-13-2010  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 23.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	0	0.0
W-1310	618,093	15.4
GSW-445	0	0.0
Total:	<u>618,093</u>	<u>15.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>618,093</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-02-2010

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 5 (PTU5)**  
**AREA TF406**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>																
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 802

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-09-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>23.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	0	0.0
W-1310	723,080	15.2
GSW-445	0	0.0
Total:	<u>723,080</u>	<u>15.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>723,080</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2010

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 03 (GTU03)**  
**AREA TF406-NW**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 681

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-13-2010  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 21.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	195,288	4.7
Total:	<u>195,288</u>	<u>4.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>195,288</u>

6. Comments:

System down from 4/4/10 to 4/6/10 due to power failure.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-05-2010

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 03 (GTU03)**  
**AREA TF406-NW**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 669

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-06-2010  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 21.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	179,441	4.5
Total:	<u>179,441</u>	<u>4.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>179,441</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2010

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 03 (GTU03)**  
**AREA TF406-NW**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>																
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 742

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-03-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	187,305	4.3
Total:	<u>187,305</u>	<u>4.3</u>

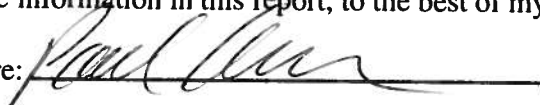
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>187,305</u>

6. Comments:

372 gallons of groundwater from TF518PZ processed through system on 6/8/10.  
System down from 6/19/10 to 6/21/10 due to power outage.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2010

**Self-Monitoring Report**  
**LLNL Solar Treatment Unit 09 (STU09)**  
**AREA TF518-N**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1410</b>	<b>0</b>	<b>0.0</b>
<b>Total:</b>	<b><u>0</u></b>	<b><u>0.0</u></b>

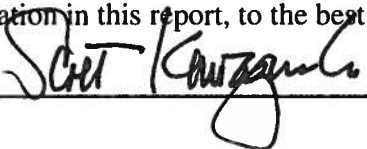
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<b><u>Arroyo Las Positas</u></b>	<b><u>TFC-R003</u></b>	<b><u>0</u></b>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 04-30-2010



**Self-Monitoring Report**  
**LLNL Solar Treatment Unit 09 (STU09)**  
**AREA TF518-N**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28		

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1410</b>	<b>0</b>	<b>0.0</b>
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Krawiec Date: 06-01-2010

**Self-Monitoring Report**  
**LLNL Solar Treatment Unit 09 (STU09)**  
**AREA TF518-N**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	29	30	31												
June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1410	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-01-2010

**Self-Monitoring Report**  
**LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)**  
**AREA TF518-PZ**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April      **01** **02** **03** **04** 05 **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): **685**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1615</b>	<b>247</b>	<b>0.0</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>
<b>W-518-1915</b>	<b>131</b>	<b>0.0</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>378</b></u>	<u><b>0.0</b></u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>378.2</b></u>

6. Comments:

Compliance sampling is not required because water is treated at TF406 Northwest (GTU03). Facility was found shutdown due to tripped circuit breaker 4/5/10. Facility was restarted 4/6/10 @ 10:50 AM.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-04-2010**

**Self-Monitoring Report**  
**LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)**  
**AREA TF518-PZ**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May            **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
                  **16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **674**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1615</b>	<b>170</b>	<b>0.0</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>
<b>W-518-1915</b>	<b>123</b>	<b>0.0</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>293</b></u>	<u><b>0.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>292.5</b></u>

6. Comments:

Compliance sampling is not required because water is treated at TF406 Northwest (GTU03).

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Sam Thomas* Date: **06-01-2010**

**Self-Monitoring Report**  
**LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)**  
**AREA TF518-PZ**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>29</u>	<u>30</u>	<u>31</u>												
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	18	19	20	21	22	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 651

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1615	152	0.0
W-518-1913	0	0.0
W-518-1915	80	0.0
W-518-1914	0	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	<u>232</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>232</u>

6. Comments:

Compliance sampling is not required because water is treated at Treatment Facility 406 NW/GTU03. Facility was secured and maintenance performed on vacuum unit 6/17/10. Facility was restarted 6/23/10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 07-01-2010

**Self-Monitoring Report**  
**LLNL Catalytic Reductive Dehalogenation 1 (CRD1)**  
**AREA TF5475-1**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: \_\_\_\_\_

Date: 05-04-2010

**Self-Monitoring Report**  
**LLNL Catalytic Reductive Dehalogenation 1 (CRD1)**  
**AREA TF5475-1**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28		

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2010

**Self-Monitoring Report**  
**LLNL Catalytic Reductive Dehalogenation 1 (CRD1)**  
**AREA TF5475-1**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	29	30	31																	
June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15					
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30					

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	<b>0</b>	<b>0.0</b>
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2010



**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 09 (GTU09)**  
**AREA TF5475-2**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	0	0.0
W-1415	0	0.0
Total:	<u>0</u>	<u>0.0</u>

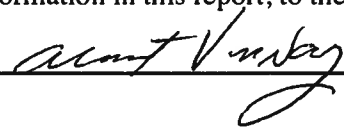
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

Facility was secured on 3/15/10 for area power upgrades.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-01-2010

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 09 (GTU09)**  
**AREA TF5475-2**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	01	02	03	04	05	<b><u>06</u></b>	<b><u>07</u></b>	<b><u>08</u></b>	<b><u>09</u></b>	10	<b><u>11</u></b>	<b><u>12</u></b>	<b><u>13</u></b>	<b><u>14</u></b>	<b><u>15</u></b>	
	<b><u>16</u></b>	<b><u>17</u></b>	<b><u>18</u></b>	19	20	21	22	23	24	25	26	27	28	29	30	31

Total monthly time facility operated (hours): 246

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-17-2010

Influent pH: 6.5

Effluent pH: 7.0

Effluent Temperature (°C): 17.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	64,680	4.4
W-1415	0	0.0
Total:	<u>64,680</u>	<u>4.4</u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>64,680</u>

6. Comments:

Facility secured on 5-18 for power upgrades.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-29-2010

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 09 (GTU09)**  
**AREA TF5475-2**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	<u><b>22</b></u>	<u><b>23</b></u>	<u><b>24</b></u>	<u><b>25</b></u>	<u><b>26</b></u>	<u><b>27</b></u>	<u><b>28</b></u>	<u><b>29</b></u>	<u><b>30</b></u>

Total monthly time facility operated (hours): 195

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u><b>06-22-2010</b></u>
Influent pH:	<u><b>6.5</b></u>
Effluent pH:	<u><b>7.0</b></u>
Effluent Temperature (°C):	<u><b>17.9</b></u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	<b>50,019</b>	<b>4.4</b>
W-1415	<b>0</b>	<b>0.0</b>
Total:	<u><b>50,019</b></u>	<u><b>4.4</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>50,019</b></u>

6. Comments:

Facility was down due to power upgrades.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-09-2010**

**Self-Monitoring Report**  
**LLNL Catalytic Reductive Dehalogenation 2 (CRD2)**  
**AREA TF5475-3**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1605	0	0.0
W-1604	0	0.0
W-1609	0	0.0
W-1608	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-04-2010

**Self-Monitoring Report**  
**LLNL Catalytic Reductive Dehalogenation 2 (CRD2)**  
**AREA TF5475-3**

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28		

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1605	0	0.0
W-1604	0	0.0
W-1609	0	0.0
W-1608	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2010

**Self-Monitoring Report**  
**LLNL Catalytic Reductive Dehalogenation 2 (CRD2)**  
**AREA TF5475-3**

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treated ground water was discharged

May	29	30	31												
June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1605	0	0.0
W-1604	0	0.0
W-1609	0	0.0
W-1608	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2010

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 08 (VES08)**  
**AREA VTF406-HS**

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-217	849,526	21.0	-2.49	68	694
W-514-2007A	147,556	3.3	-5.27	68	694
W-514-2007B	410,875	11.0	-2.86	68	694
Total:	<u>1,407,957</u>	<u>35.3</u>			

4. Comments:

Facility was discovered shutdown 4/6/10. Cause of shutdown unknown. Facility was restarted 4/6 @ 07:30 hrs.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 04-30-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 08 (VES08)

### AREA VTF406-HS

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-217	836,821	20.0	-2.32	78	679
W-514-2007A	157,422	4.1	-6.19	78	679
W-514-2007B	440,465	11.0	-3.21	78	679
Total:	<u>1,434,708</u>	<u>35.1</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 06-01-2010



# Self-Monitoring Report

## LLNL Vapor Extraction System 08 (VES08)

### AREA VTF406-HS

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

May	<u>29</u>	<u>30</u>	<u>31</u>																				
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>								
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>								

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-217	918,883	20.5	-2.19	24	755
W-514-2007A	181,949	4.5	-6.25	24	755
W-514-2007B	478,021	10.0	-2.8	24	755
Total:	<u>1,578,853</u>	<u>34.9</u>			

4. Comments:

Facility was offline 6/19/10 @ 06:00 hrs. to 6/21/10 @ 07:30 hrs due to power outage. Month end volumes and hours of operation were adjusted to exclude volumes accumulated while facility was offline.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Kumar Date: 07-01-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 05 (VES05)

### AREA VTF511

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

April      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
              16 17 18 19 20 21 22 23 24 25 26 27 28 **29** **30**


3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-274	0	0.0	0	0	24
W-2208A	0	0.0	0	0	24
W-2207A	0	0.0	0	0	24
W-2207B	4,702	2.9	-6.2	72	24
W-1517	0	0.0	0	0	24
W-2208B	11,641	8.3	-3.2	72	24
W-2204	0	0.0	0	0	24
W-2206	0	0.0	0	0	24
W-2205	0	0.0	0	0	24
Total:	<b><u>16,343</u></b>	<b><u>11.1</u></b>			

4. Comments:

Facility restarted 4/29 operating in test and verification mode. Facility was offline most of reporting month to remove condensate from extraction lines and evaluate differential pressure transducer and venturi operation. Month end volumes entered on this report may not be accurate due to erroneous flow measurements. Efforts to determine the validity of DP and pressure transducers are ongoing.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-18-2010**

# Self-Monitoring Report

## LLNL Vapor Extraction System 05 (VES05)

### AREA VTF511

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-274	0	0.0	0	0	0
W-2208A	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	302,881	10.3	-4.3	67	670
W-1517	0	0.0	0	0	0
W-2208B	405,279	9.9	-3.7	67	670
W-2204	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
Total:	<u>708,160</u>	<u>20.2</u>			

4. Comments:

Month end volumes entered on this report may not be accurate due to erroneous flow measurements. Tests to determine the validity of electronic measuring devices in use at this facility are in progress.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 05 (VES05)

### AREA VTF511

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

May	<u>29</u>	<u>30</u>	<u>31</u>																	
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>					

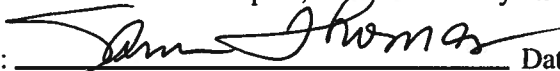
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-274	0	0.0	0	0	0
W-2208A	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	526,508	12.4	-4.8	62	741
W-1517	0	0.0	0	0	0
W-2208B	341,196	6.1	-4.2	62	741
W-2204	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
<hr/>					
Total:	<u>867,704</u>	<u>18.6</u>			

4. Comments:

Removed 1" 513 venturi from W-2207 extraction line and installed 1" 648 Gerand venturi 6/04/10. Facility was found shutdown due to power outage that occurred 6/19/10 @ ~06:00 hrs. Facility was restarted 6/21/10 @ 0730 hrs. Month end volumes entered on this report may not be accurate due to erroneous flow measurements. Tests to determine the validity of electronic measuring devices in use at this facility are in progress.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-14-2010

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month April Week: 1 Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

March 27 28 29 30 31  
April 01 02

3. Wellfield Data:

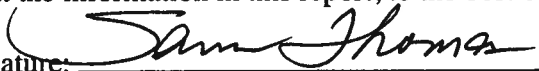
<u>Source</u>	<u>Weekly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1615	37,985	3.8	-14	52	167
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	3,998	0.4	-23.3	52	167
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0

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Total:	<u>41,983</u>	<u>4.2</u>			
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4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 04-15-2010

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month April **Week: 2** Year **2010**

2. Dates (in **bold** and underline ) treatment facility operated

April      **03** **04** 05 **06** **07** **08** **09**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	29,304	3.7	-14.5	52	132
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	3,168	0.4	-23.5	52	132
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<b><u>32,472</u></b>	<b><u>4.1</u></b>			

4. Comments:

Facility was discovered shutdown 4/6/10 due to unscheduled power outage.  
Facility was restarted 4/6 @ 10:55 AM.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **04-13-2010**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month April **Week: 3** Year **2010**

2. Dates (in **bold** and underline ) treatment facility operated

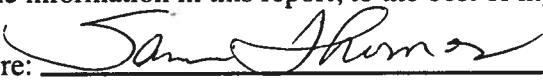
April      **10** **11** **12** **13** **14** **15** **16**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	38,144	3.8	-14.2	49	167
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	4,015	0.4	-23.5	49	167
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>42,159</u>	<u>4.2</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **04-21-2010**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month April Week: **4** Year **2010**

2. Dates (in **bold** and underline ) treatment facility operated

April      **17** **18** **19** **20** **21** **22** **23**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	38,236	3.8	-14	50	168
W-518-1913	0	0.0	0	0	168
W-518-1914	0	0.0	0	0	168
W-518-1915	4,025	0.4	-23.4	50	168
SVB-518-201	0	0.0	0	0	168
SVB-518-204	0	0.0	0	0	168
Total:	<u><b>42,261</b></u>	<u><b>4.2</b></u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-04-2010**



**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month April Week: 5 Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

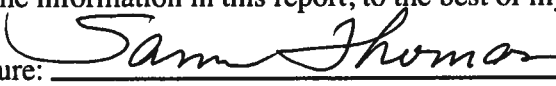
April      **24** **25** **26** **27** **28** **29** **30**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	38,418	3.8	-14	48	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	4,044	0.4	-23.5	48	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>42,462</u>	<u>4.2</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-04-2010

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month May **Week: 1** Year **2010**

2. Dates (in **bold** and underline ) treatment facility operated

May        **01** **02** **03** **04** **05** **06** **07**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	38,406	3.7	-13.5	72	173
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	4,152	0.4	-23	72	173
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>42,558</u>	<u>4.1</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 05-10-2010

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month May Week: 2 Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

May        **08** **09** **10** **11** **12** **13** **14**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	34,587	3.5	-16	57	165
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	3,953	0.4	-23.5	57	165
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>38,540</u>	<u>3.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 05-17-2010

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month May **Week: 3** Year **2010**

2. Dates (in **bold** and underline ) treatment facility operated

May        **15** **16** **17** **18** **19** **20** **21**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	36,919	3.7	-14.3	54	166
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	3,991	0.4	-23.8	54	166
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u><b>40,910</b></u>	<u><b>4.1</b></u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-01-2010**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month May **Week: 4** Year **2010**

2. Dates (in **bold** and underline ) treatment facility operated

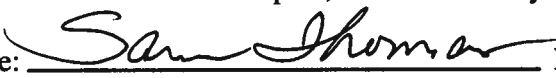
May **22** **23** **24** **25** **26** **27** **28**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	37,762	3.7	-14	61	170
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	3,062	0.3	-25.5	61	170
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>40,824</u>	<u>4.0</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2010

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month June Week: 1 Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

May	<u>29</u>	<u>30</u>	<u>31</u>	
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>

3. Wellfield Data:

<u>Source</u>	<u>Weekly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1615	36,461	3.6	-13.7	81	169
W-518-1913	0	0.0	0	0	169
W-518-1914	0	0.0	0	0	169
W-518-1915	4,051	0.4	-23.2	81	169
SVB-518-201	0	0.0	0	0	169
SVB-518-204	0	0.0	0	0	169
Total:	<u>40,512</u>	<u>4.0</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 06-07-2010

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month June Week: 2 Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

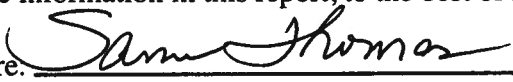
June        **05** **06** **07** **08** **09** **10** **11**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	37,757	3.8	-13.5	70	166
W-518-1913	0	0.0	0	0	166
W-518-1915	1,987	0.2	-23	70	166
W-518-1914	0	0.0	0	0	166
SVB-518-201	0	0.0	0	0	166
SVB-518-204	0	0.0	0	0	166
Total:	<u>39,744</u>	<u>4.0</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-16-2010

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month June Week: 3 Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

June **12** **13** **14** **15** **16** **17**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	31,635	3.7	-13	79	142
W-518-1913	0	0.0	0	0	0
W-518-1915	4,275	0.5	-22.5	79	142
W-518-1914	0	0.0	0	0	0
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>35,910</u>	<u>4.2</u>			

4. Comments:

Facility was secured 6/15 to replace carbon filters. Facility was restarted 6/15 @ 13:15 hrs. Facility secured 6/17/10 @ 13:55 to perform maintenance to vacuum unit.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 07-01-2010



**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month June Week: 4 Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

June            18   19   20   21   22   **23**   **24**   **25**

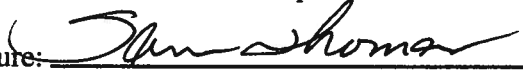
3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	10,649	3.4	-17	54	52
W-518-1913	0	0.0	0	0	52
W-518-1915	1,253	0.4	-23.3	54	52
W-518-1914	0	0.0	0	0	52
SVB-518-201	0	0.0	0	0	52
SVB-518-204	0	0.0	0	0	52
Total:	<u><b>11,902</b></u>	<u><b>3.8</b></u>			

4. Comments:

Facility secured 6/17 to perform maintenance to vacuum unit. Facility was restarted 6/23 @ 08:00 hrs.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-02-2010**

# Self-Monitoring Report

## LLNL Vapor Extraction System 01 (VES01)

### AREA VTF5475

1. Reporting Period: Business Month April Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

April	<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>	<b>05</b>	<b>06</b>	<b>07</b>	<b>08</b>	<b>09</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>
	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-507	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-1605	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

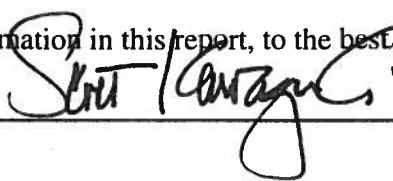
4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY 2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 04-30-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 01 (VES01)

### AREA VTF5475

1. Reporting Period: Business Month May Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28		

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-507	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-1605	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
<hr/>					
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY 2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2010

# Self-Monitoring Report

## LLNL Vapor Extraction System 01 (VES01)

### AREA VTF5475

1. Reporting Period: Business Month June Year 2010

2. Dates (in **bold** and underline ) treatment facility operated

May	29	30	31												
June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-507	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-1605	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY 2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-01-2010

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## **Attachment C**

### **Lake Haussmann**

## Attachment C

### Lake Haussmann Second Quarter 2010 Monitoring Program Summary

This attachment summarizes the second quarter 2010 LLNL Environmental Protection Department discharge data for Lake Haussmann. Lake Haussmann is an artificial water body that has a 37 acre-ft capacity. It is located in the central portion of the Livermore Site (Fig. C-1) and receives storm water runoff and treated ground water discharges.

Samples are collected from water discharged from Lake Haussmann and analyzed as outlined in Jackson (2002). The discharge samples are used to determine compliance with discharge limits in the *Record of Decision* (DOE, 1992), and the subsequent *Explanation of Significant Differences for Metals Discharge Limits* (Berg et al., 1997).

Dry season (June, July, August, September) discharges are sampled at each manual release or monthly during periods of continual release. Wet season (October through May) discharge samples are collected at the first release of the wet season and one other discharge in conjunction with a storm water monitoring event. Analytic results of discharge samples collected at location CDBX are compared with the LLNL Arroyo Las Positas outfall sample results collected at location WPDC (Fig. C-1). The results for samples collected at locations CDBX and WPDC are presented in Table C-1. All PCBs were below detection limits. No metals exceed discharge limits. The pH value at the CDBX exceeded the desired range of 6.5 to 8.5. The pH has averaged 8.8 since 1998 and is typically elevated during summer due to increased photosynthesis. Aquatic bioassay tests showed no toxicity.

Discharge from Lake Haussmann remained continuous during the second quarter. The first dry season sample was collected on June 14, 2010. The Lake Haussmann upper weir gate was maintained at the lowered position during the entire second quarter so that releases occurred continuously to minimize changes in surface water level and allow for a more natural ecosystem.

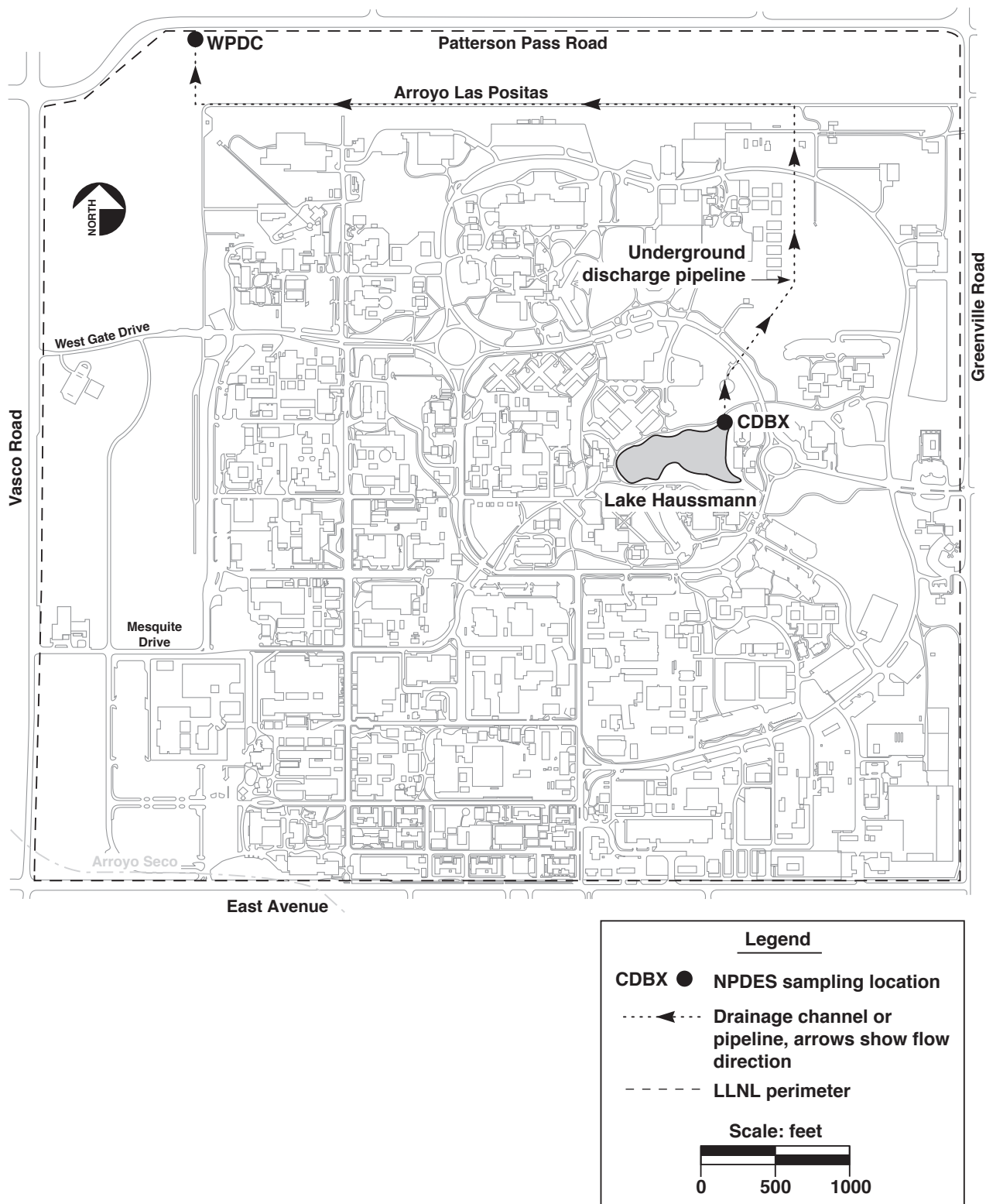
### References

- U.S. Department of Energy, *Record of Decision for the Lawrence Livermore National Laboratory, Livermore Site*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-AR-109105, (1992).
- Berg, L.L., E.N. Folsom, M.D. Dresen, R.W. Bainer, and A.L. Lamarre, Eds., *Explanation of Significant Differences for Metals Discharge Limits at the Lawrence Livermore National Laboratory, Livermore Site*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-AR-125927 (1997).
- Jackson, C.S., *Drainage Retention Basin Monitoring Plan Change*, Letter to Ms. Naomi Feger, San Francisco Bay RWQCB, Lawrence Livermore National Laboratory, Livermore, CA, WGMG02:175:CSJ:RW:kh, (December 6, 2002)

**Table C-1. LLNL Lake Haussmann release monitoring data for points CDBX and WPDC, April through June 2010.**

			<b>CDBX 6/14</b>	<b>WPDC 6/14</b>	<b>Discharge Limits 1-Apr through 30-Nov</b>	<b>Discharge Limits 1-Dec through 31-Mar</b>
<b>Physical</b>						
pH	Units	EPA-150.1	<b>9.67</b>	8.41	not <6.5 or >8.5	not <6.5 or >8.5
Total suspended solids (TSS)	mg/L	EPA-160.2	4.	11.	na	na
<b>Metals - Total</b>						
Aluminum	mg/L	EPA-200.7	<0.05	0.39	na	na
Antimony	mg/L	EPA-200.8	<0.002	<0.002	0.006	na
Arsenic	mg/L	EPA-200.8	<0.002	<0.002	0.05	0.01
Barium	mg/L	EPA-200.7	0.08	0.11	na	na
Beryllium	mg/L	EPA-210.2	<0.0002	<0.0002	0.004	na
Boron	mg/L	EPA-200.7	1.2	1.5	na	na
Cadmium	mg/L	EPA-200.8	<0.001	<0.001	0.005	0.0022
Chromium	mg/L	EPA-200.8	0.0041	0.011	0.05	na
Cobalt	mg/L	EPA-200.7	<0.05	<0.05	na	na
Copper	mg/L	EPA-200.8	<0.002	0.0024	1.3	0.0236
Hexavalent Chromium	mg/L	EPA-218.6	0.0029	0.0062	na	0.022
Iron	mg/L	EPA-200.7	<0.05	0.49	na	na
Lead	mg/L	EPA-200.8	<0.001	<0.001	0.015	0.0064
Manganese	mg/L	EPA-200.8	0.0046	0.019	0.5	0.5
Mercury	mg/L	EPA-245.1	<0.0002	<0.0002	0.002	0.002
Molybdenum	mg/L	EPA-200.8	0.0025	0.0026	0.05	na
Nickel	mg/L	EPA-200.8	<0.002	0.0033	0.1	0.32
Selenium	mg/L	EPA-200.8	<0.002	<0.002	0.05	0.01
Silver	mg/L	EPA-200.8	<0.001	<0.001	0.1	0.0082
Thallium	mg/L	EPA-200.8	<0.001	<0.001	0.002	na
Vanadium	mg/L	EPA-200.7	<0.01	<0.01	na	na
Zinc	mg/L	EPA-200.7	<0.05	<0.05	na	0.22
<b>Polychlorinated biphenyls</b>						
PCB 1016	ug/L	E8082A	<0.5	a	na	na
PCB 1221	ug/L	E8082A	<0.5	a	na	na
PCB 1232	ug/L	E8082A	<0.5	a	na	na
PCB 1242	ug/L	E8082A	<0.5	a	na	na
PCB 1248	ug/L	E8082A	<0.5	a	na	na
PCB 1254	ug/L	E8082A	<0.5	a	na	na
PCB 1260	ug/L	E8082A	<0.5	a	na	na
<b>Toxicity</b>						
Aq. Bioassay, Survival	Percent	Title 22	100	85	na	na

a) Sampling for these analytes not required at this location during this period.



ERD-S3R-08-0041

**Figure C-1. Location of Lake Haussmann showing discharge sampling locations.**



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## **Attachment D**

### **Figures**

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## **Attachment D**

### **Figures**

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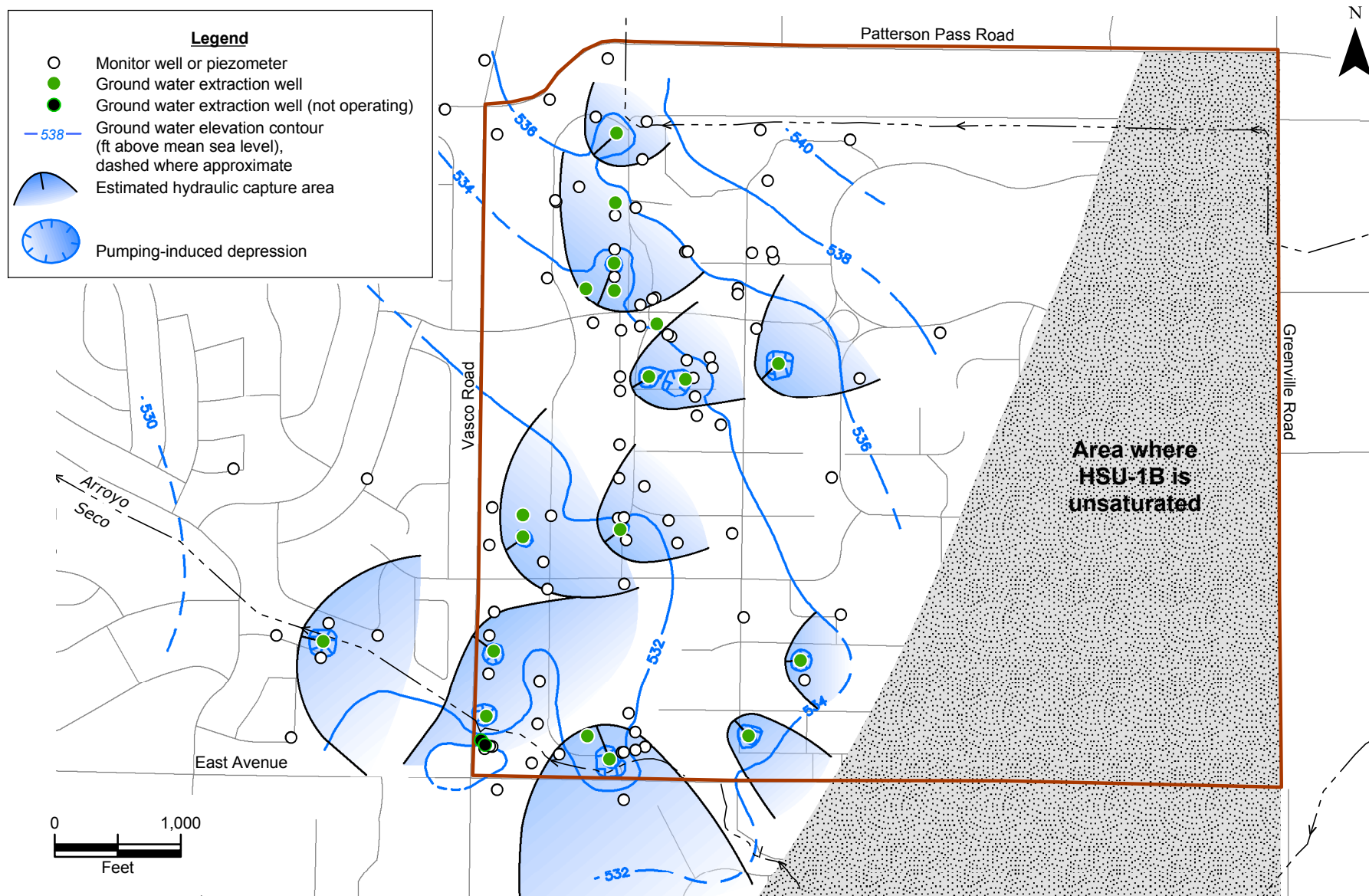
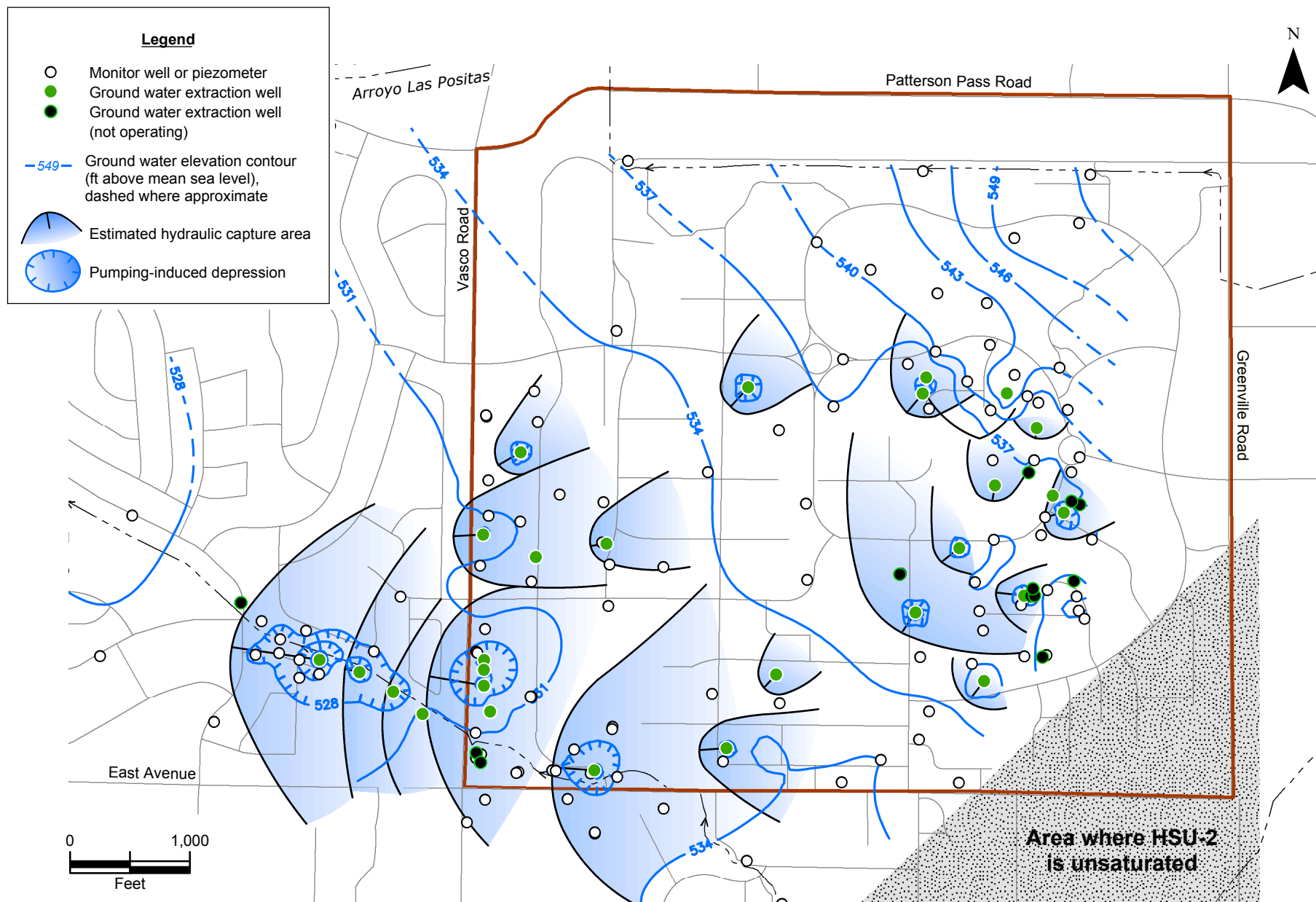


Figure 2. Ground water elevation contour map based on 115 wells completed within HSU-1B showing estimated hydraulic capture areas, LLNL and vicinity, April 2010.



**Figure 3. Ground water elevation contour map based on 155 wells completed within HSU-2 showing estimated hydraulic capture areas, LLNL and vicinity, April 2010.**

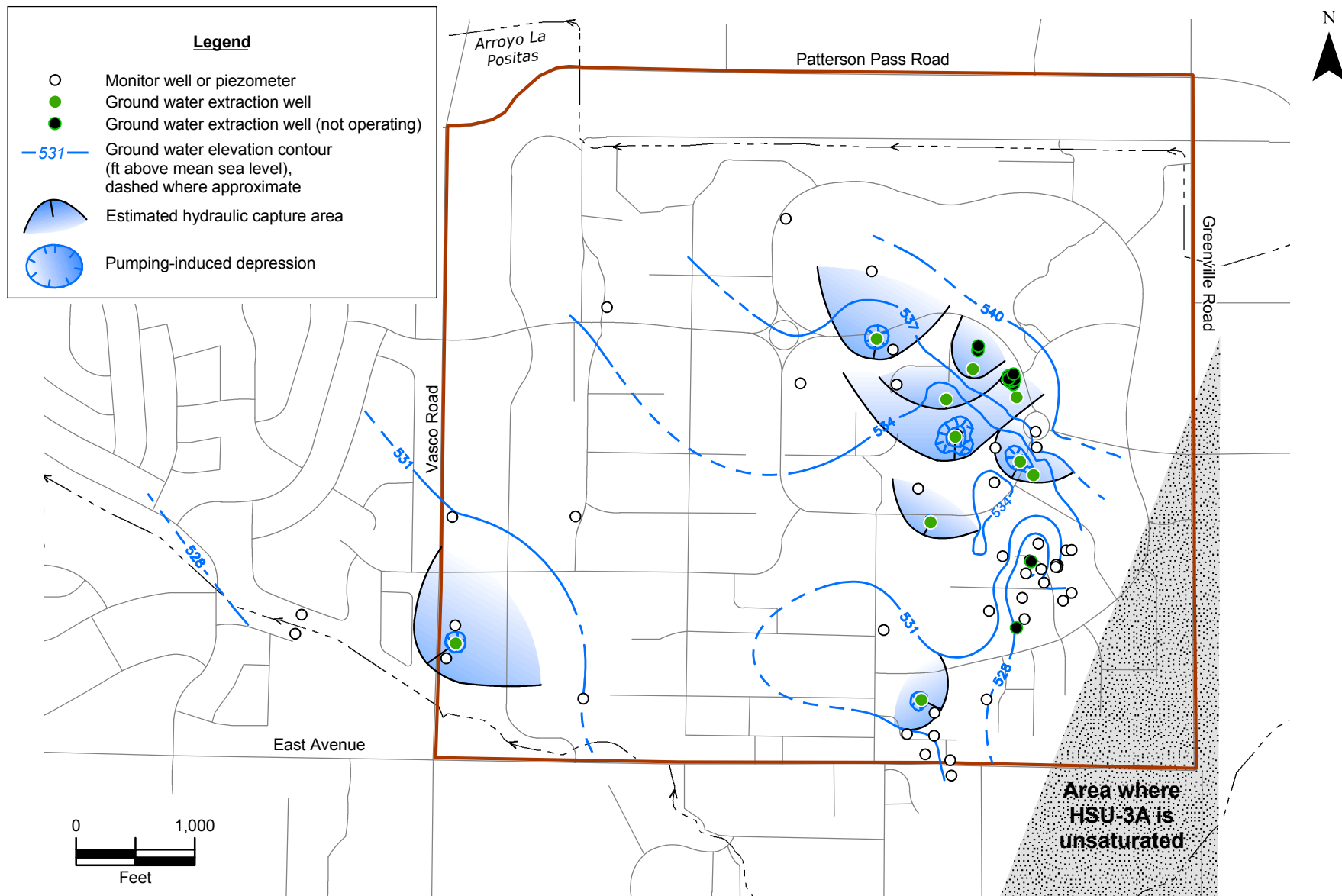
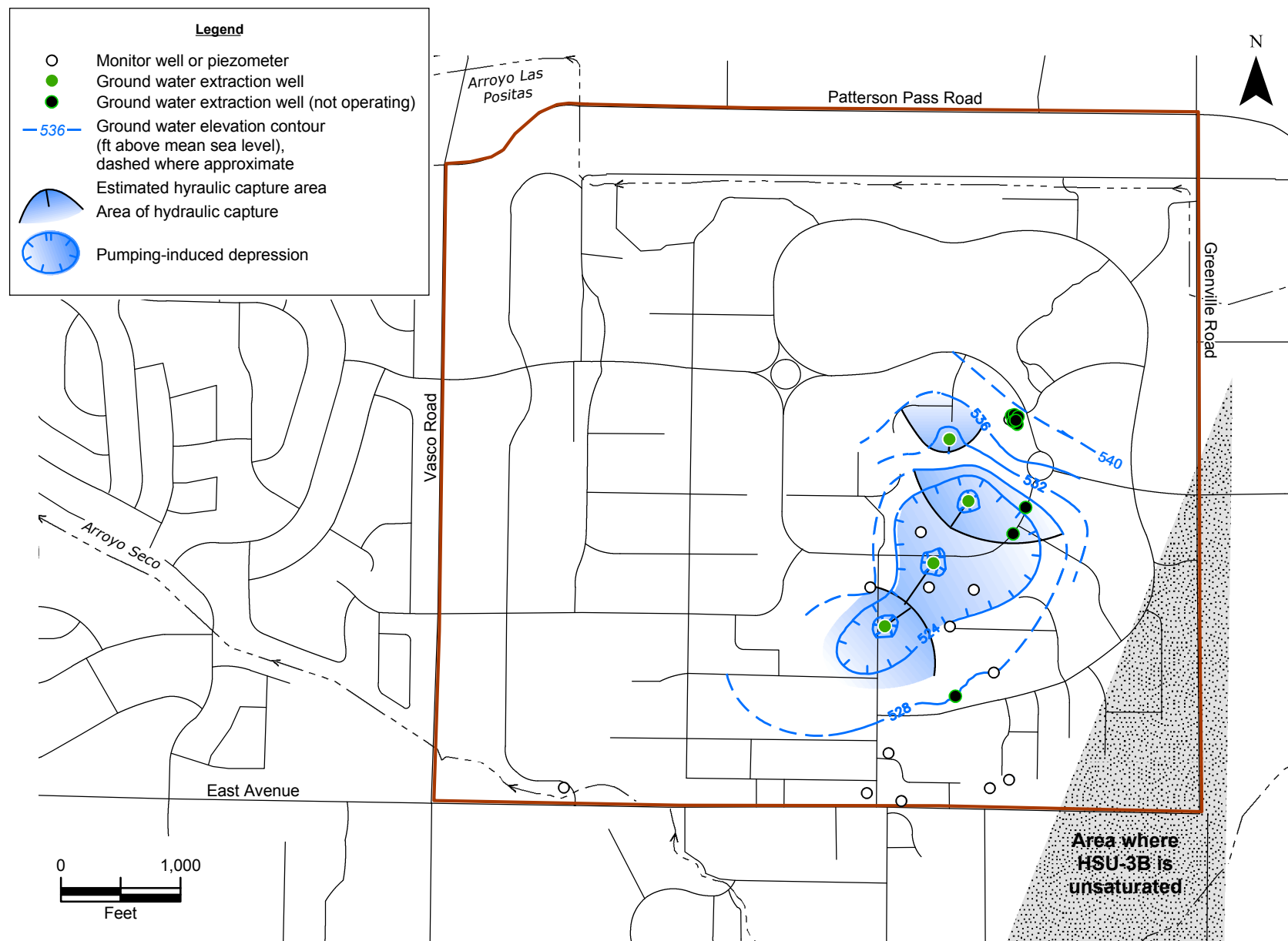
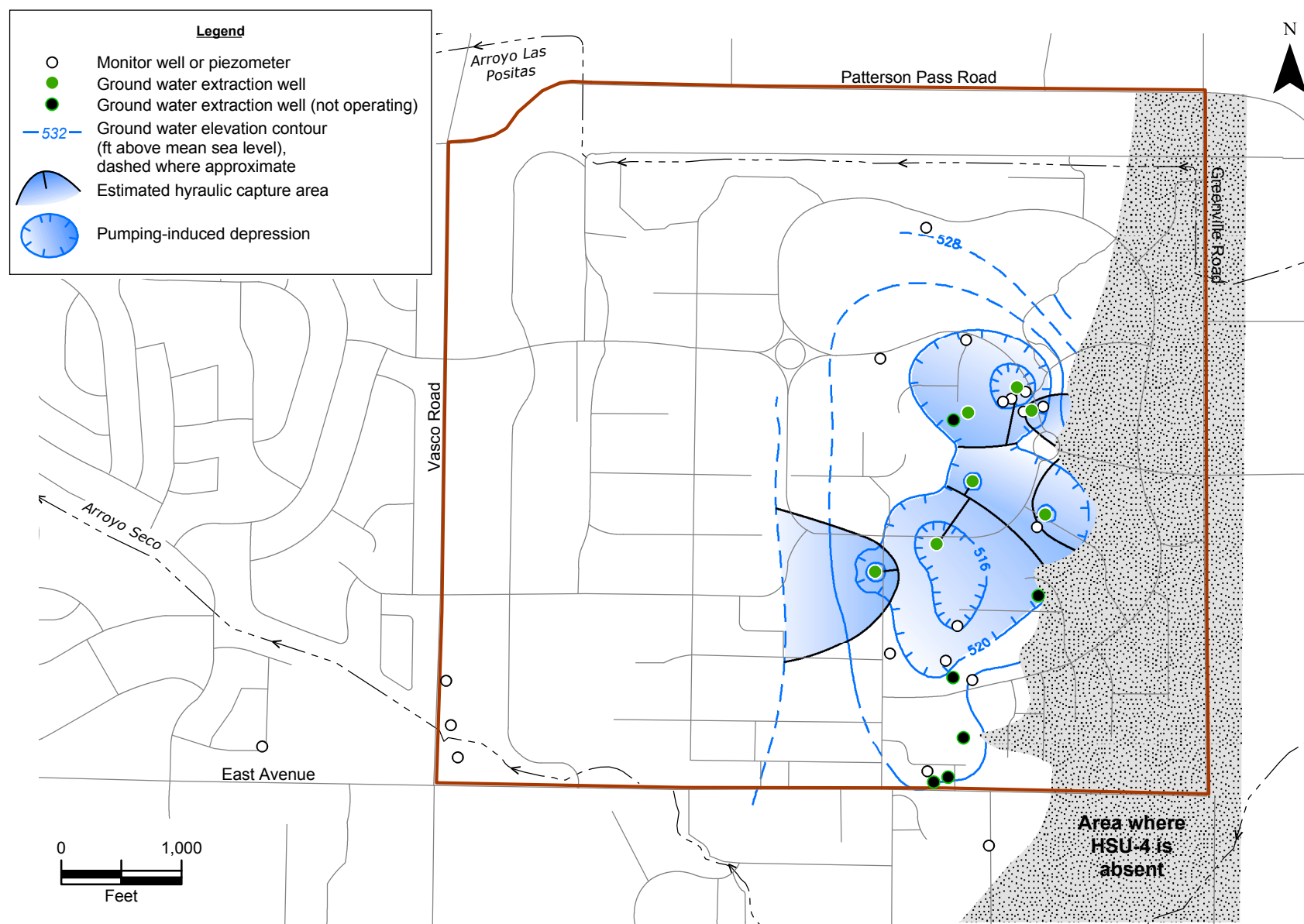


Figure 4. Ground water elevation contour map based on 70 wells completed within HSU-3A showing estimated hydraulic capture areas, LLNL and vicinity, April 2010.

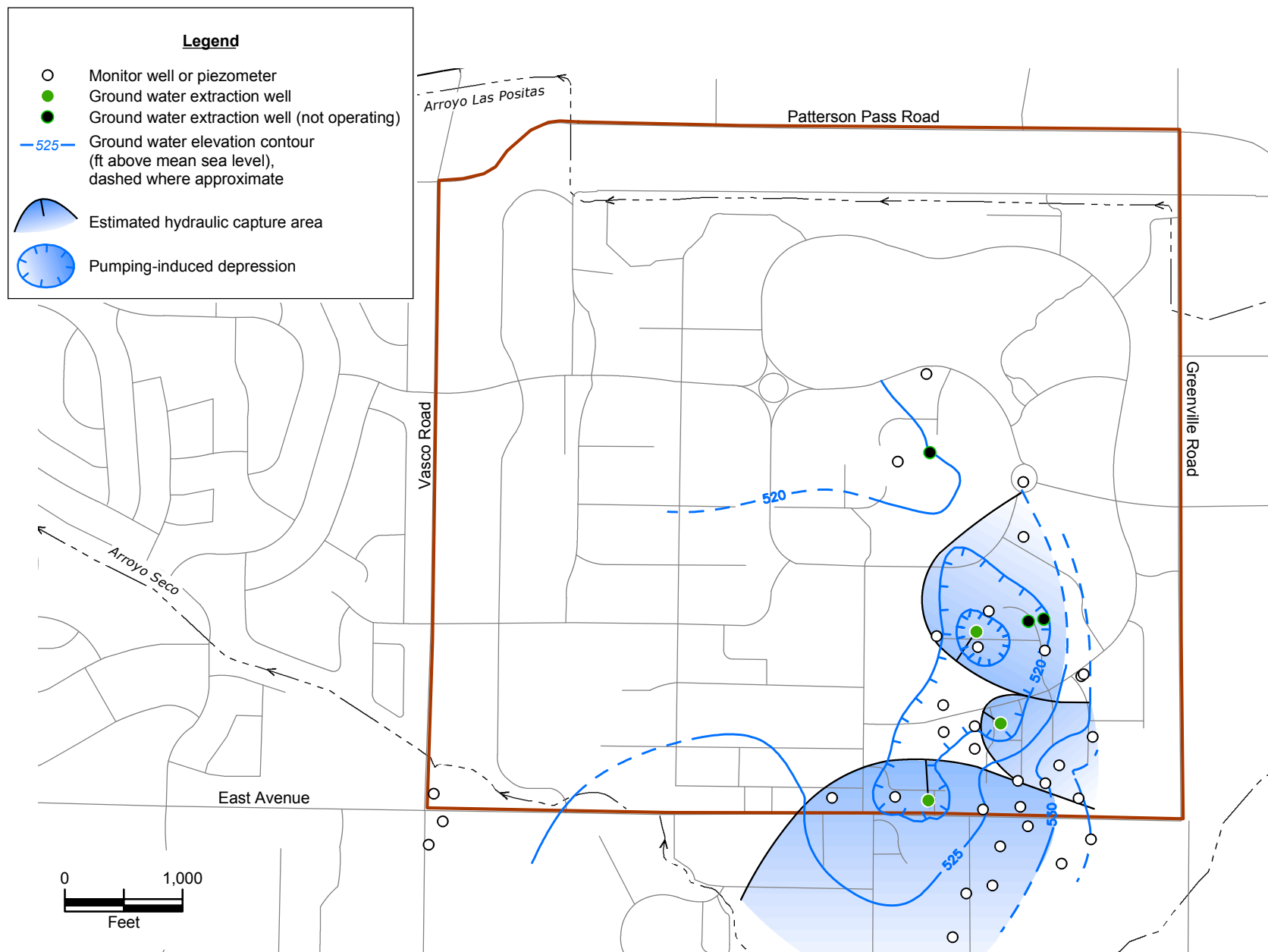


**Figure 5. Ground water elevation contour map based on 27 wells completed within HSU-3B showing estimated hydraulic capture areas, LLNL and vicinity, April 2010.**



**Figure 6. Ground water elevation contour map based on 32 wells completed within HSU-4 showing estimated hydraulic capture areas, LLNL and vicinity, April 2010.**





**Figure 7. Ground water elevation contour map based on 40 wells completed within HSU-5 showing estimated hydraulic capture areas, LLNL and vicinity, April 2010.**